List of reports created on the Nuvia Data Team

Created by: Cristian Rafael Mendoza Maldonado
Data scientist – Nuvia data team – Platform support

Lab metric report:

This report contain the number of arches and metrics of the products by center and regions. To use this report you need to update the month of the report you want to created, please first look at the **Nuvia app report.pdf** on this folder to know to add the information if you are creating a report of a new month after december 2023. Once you make sure to have the updated information of the created and finished orders of the month, please doble click on the **nuvia_app_report.bat** file. It will show you a black screen as in imagen 1.0, please follow the instruccions or look for the **READ_ME.md** file on the same folder.

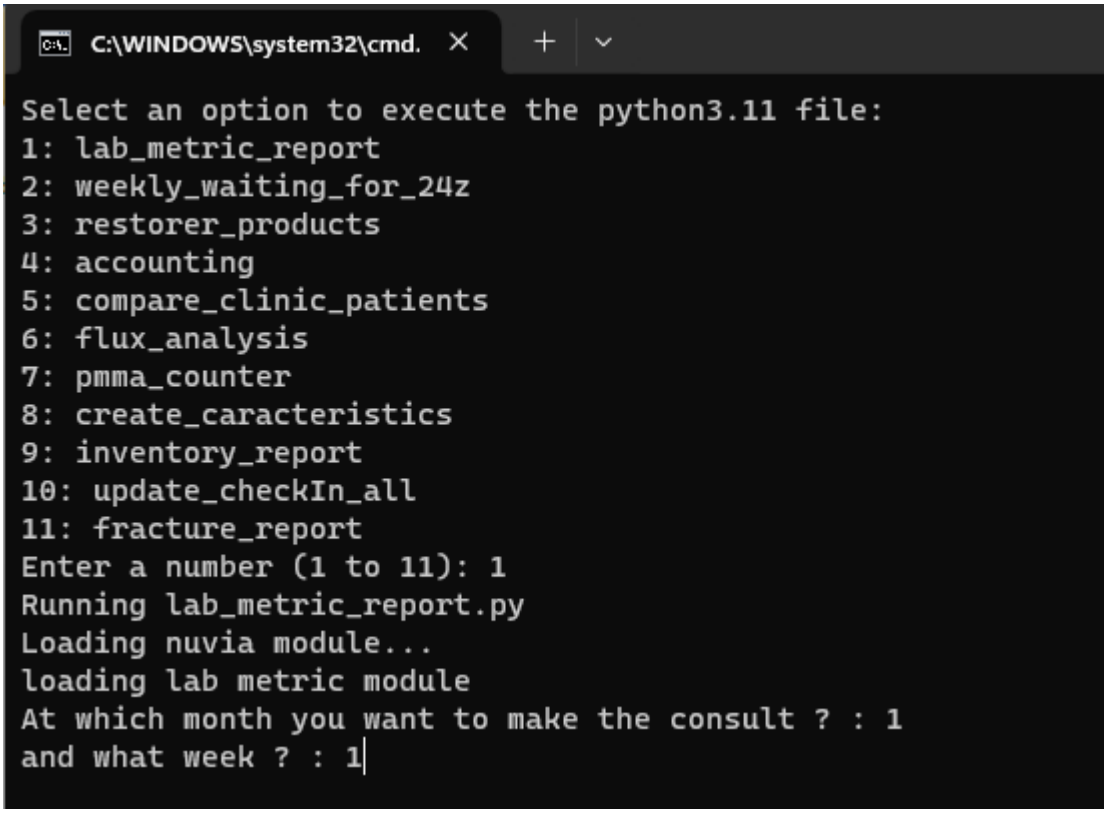


Imagen 1.0 : nuvia_app_report screen, reports selecction.

One you select the 1 for lab metric report and select the month and week of the report as in image 1.0 the creation of the report will begin and it'll appear on you screen some similar message as in image 1.1, please take in count the part that describe the week and the month for what you are

creating the report and in case it´s needed the ***new products to add*** on the app, if a new product it not added yet to this software please contact cristian@nuviasmiles.com to solve this issue or look for the .json file yourself.

```
Starting the lab metric report ...
{'2024-01-03', '2024-01-05', '2024-01-04', '2024-01-02', nan}
Creation of the weekly report
--------------------------------------------------------------------------------
 Initializing the report for the week 1 with the days ['2024-01-02', '2024-01-03', '2024-01-04', '2024-01-05', '2024-01-06', '2024-01-07']
This are the new products to add : []

                Report of the week 1 finished

This are the new products to add : []
    Creation of the Monthly report finished
Analysis of the G-CAM cases finished
Analysis of the Redo cases finished
Counting the G-CAM cases waiting for 24z arches finished
N6 Analysis of the history of the patients finished
Exporting the data ...
End of the Report
Presione una tecla para continuar . . .
```

Imagen 1.1 : message while creating lab metric report.

As the result of this part, the software will export 3 excels files, named as :

“Reported_sheets_{month}.xlsx” ,

“Gcam_cases_studied_false_{month}.xlsx” ,

“Redo_cases_false_{month}.xlsx”

Where {month} it´s the number of the selected month for the report. You could find those files on the path **". \nuvia_app_reports\results".** For the Gcam cases file you will find a sheet with the columns below showed on image 1.0.

A	B	C	D	E	F	G	H	I	J	K	L	M	N
invoice	why G-CAM ?	24z processed ?	restorer	center	patient	product	archs	region	week_number	date_In	date_Out	status	week_number_end
37922	This case is single g-cam per dr request	NO	Dr. Jacqueline Chow	DALLAS OFFICE	Pat Rutledge	N3 - Single G-CAM/tibar	1	TEXAS	1	2023-12-05 00:00:00	2023-12-06 00:00:00	Post Delivery Record	1
38071	Made on G-CAM for measures on design	NO	Dr. Wendy Fu	DALLAS OFFICE	Doug Williams	N3 - Single G-CAM/tibar	1	TEXAS	1	2023-12-06 00:00:00	2023-12-07 00:00:00	Post Delivery Record	1
37733	We can't design this case as 24z because we need face design to procced. remember for singles we'll need accurate information so we can do a better job. this case will be g-cam.	NO	Dr Venkata Mohan Mutnuri	FORTWORTH OFFICE	scott carrell	N3 - Single G-CAM/tibar	1	TEXAS	1	2023-12-04 00:00:00	2023-12-06 00:00:00	Post Delivery Record	1
37901	We had no measures to prosecute the case as 24z.	NO	Dr Michael MacWillia m	DENVER OFFICE	Mary Rinberger	N3 - G-CAM/tibar	2	INTERMOUNTAIN	1	2023-12-05 00:00:00	2023-12-06 00:00:00	Post Delivery Record	1

Imagen 1.2: gcam order´s file.

This excel file give you the gcam cases of the month, they were needed for the fullfil of two columns highlighted in orange in the image 1.0, where you need to describe the cause of the G-CAM material selection in the cases and for the single product on the **why G-CAM ?** column. One zirconia arch is producted while the demodenture is processed and it´s part of the demodenture process, if a gcam product it´s selected and this zirconia it´s processing, this material it´s lost and you need to describe it on the ***24z processed?*** Column because this not happend on all the cases.

You will find more information like : invoice, restorer name, center, patient, product name, number of arches, region for a correct description of the cases. Therefor you should take in count the columns under the red box. Those are ***date_in, date_Out*** and ***status*** where you can find the date of creation and delivery of the cases, also the status column hace the name of the stage where the cases it´s in. On the blue boxes you will fine this same information but separated by the number of the week, this week you can find it on the path ".\documentation\ *.md" the you should look for the ***weekYEAR.md*** file for the year of you selection.

For the study of the redo cases you should consult the file named ***"Redo_cases_false_{month}.xlsx".*** There you will find the listo of the redo orders made on the month of you consult as you can see on imagen 1.1. On the showed columns you will have number of the orden with some important characteristic used for the classification of this products on the production of the month.

A	B	C	D	E	F	G	H	I	J	K	L
invoice	**patient**	**restorer**	**center**	**archs**	**amount**	**product**	**product class**	**region**	**material**	**arch type**	**redo type**
38541	Kayleen Boese	Dr Michael MacWilliam	DENVER OFFICE	2	7000	N6 - Redo Material Change G-CAM/tibar	N6	INTERMOUNTAIN	G-CAM	Full Mounth	REDO
38800	Elizabeth Sanchez	Dr Paola Annoni patel	TAMPA OFFICE	2	10000	N3- Redo Full Mouth 24Z	N3	SOUTH ATLANTIC	24Z	Full Mounth	REDO

Image 1.3 : First seccion of the columns on the redo cases excel file.

On the second hand if you look further on the columns you should get the section showed on imagen1.2, there you have the information regarded about the delivery of this arches, below it will explained each column in details :

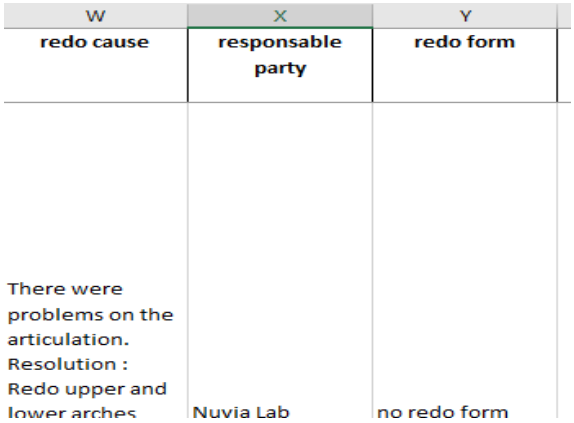
- **diff_hour :** This are the number of hours needed to delivered this cases. It consider the sustraccion of the not productivity time, like weekends and holidays.
- **Delivery_on_time :** This column have the information that confirm if the cases was delivery on time. If it´s empty the cases was not delivery yet or it was not delivered on the standart time.
- **week_number :** This is the number of the week when the cases was created. If it´s empty should mean that the creation of the product was made on that month but it was counted on the previous weekly report. For that it keeps empty.
- **Week_number_end:** This is the number of the week when the case is delivery. If it´s empty means that the cases was not delivery yet.

- **Status:** This column have the name of the stage the cases is currently in. Take in count that the criteria for the count of finished cases it´s exactly that the case is in Post delivery record stage. If not, the cases will not count on future mesurements and the calculation of metrics.
- **CheckIn and CheckOut :** This columns have the exactly date and time information about the creation and the finalization of the cases. Take in count that the checkIn column has the time when the order it´s created and CheckOut has the information of when the cases is finished on the laboratory part, that means, when the lab check out stage it´s approved and the Post delivery cases stage it´s created.
- **Created_on_month and finished_on_month :** This two columns have the information of the cases that are created and finished in the same month of the report. This columns were created to solve the problem of selection of the product that belongs only for the month of the report, because of the weekly report not match exactly with the end of the months.
- **History_status:** this columns have the information about the new casea that were added on the report, if it was a old reported cases that was saved on the path ***"./data/YEAR/Redo_cases_studied.xlsx"*** it should be empty but if it´s not, it will have the **"new"** value on it.

M	N	O	P	Q	R	S	T	U	V
diff_hour	**delivery_on_time**	**week_number**	**week_number_end**	**status**	**checkIn**	**CheckOut**	**created_on_month**	**finished_on_month**	**history-status**
150			1	Post Delivery Record	2023-11-30 15:48:46	2023-12-06 22:25:10		1	

Image 1.4 : second section of columns on redo arches excel file, delivery information about one case.

Finally the last section have the columns that you should fullfil for the creation of the repor, those are : redo cause , responsable pary, redo form. As you can see on image 1.3,



W	X	Y
redo cause	**responsable party**	**redo form**
There were problems on the articulation. Resolution : Redo upper and lower arches	Nuvia Lab	no redo form

Imagen 1.5: cause, responsable party and form information for the redo cases.

Now I'll explain the more complex file on this report, named `'Reported sheet_{month}.xlsx'` on the folder path `'. /results/'.` The mean goal of this part it´s mesure the performance of the company by región, centers, products, weeks, month and some other important characteristics using insigth on the process for that.

If you open the file you'll see the named sheet : Report, percents_by_region, Gcam_to_24z, monthly_report, monthly_percents_regions, N6_analysis, database_month_in_and_out, errors. Let´s talk about the first one, Report, on this you can see differents columns

Count of arches	24Z_Full Mouth , 24Z_Single, G-CAM_Full Mouth G-CAM_Single, N4 arches N3_redo, N6, N6_redo
Number of products and quantities	N_delivery_on_time, N_surgeries, Labtime
Count arches on other products	reline_sum, N7_total
Count of products	N_delivery_n3_redos_on_time, N_delivery_n6_on_time, N_surgeries_N3, N_surgeries_N6, N_surgeries_other_products Total_arches, N_delivery_on_time_total, N_surgeries_total
Percents of products and arches	zirconia, redo_n3, redo_n6, capacity, delivery, reline, surgeries, material_change
classification	Region, week_number, center

Table 1.0 : List of columns on the report sheet by it´s characteristics.

On this section, we don´t want to be so much redundant about the sum of arches and count of products. In general, the columns on the **count of arches** row on table 1.0 are the sum on the arches by itps material and arch type or by it´s product class and redo type for the redo arches.

On the **N_** columns you will get the count of the products by named characteristics with the **_total** meaning as the sum of this quantities. On the percents of products and arches I give you the defination of this percents below :

N4 arches = sum of the total N3 arches

Zirconia = sum of the n3 zirconia arches / N4 arches

Redo_n3 = sum of n3 redo arches / total arches

Redo_n6 = sum of n6 redo arches / total arches

Capacity = total arches/capacity of the week

Delivery = N_delivery_on_time_total / N_delivery

Reline = reline_sum / total arches

Surgeries = N_surgeries_N3 / total arches

Material_change = N_surgeries_N6 / total arches

Taking in count that

total arches = sum of the total N3 and the total of N6 arches.

Usually the capacity of the week by each center it´s 20 but on some weeks it could be less because it´s taked as 4 arches by day, so that depend on the productive days on the center.

Let´s talk about the second one, the percents_by_region sheet, this have the values of the parameters redo_n3, redo_n6, zirconia, capacity, delivery by region and week_number.

On the Gcam_to_24z sheet, you can find the information of the pmma and gcam arches of the patients which it´s last used material was one of they and theorically they´re waiting for a material change to a zirconia products.This number of arches are classificated by year, month of the delivered arches, center, material and region.

On the monthly_report, as you may imagine, there it´s the same information of the sheet report but in a monthly time lapse. Similarly for the monthly_percents_regions sheet.

As for the N6 analysis you will find a regularly study that count the number of material change arches made by center and region labeled as mc. As for the other columns, there meanings are:

mc_dummy: how many of this material change arches becomes dummy arches as it´s next selected product.

mc_reline: how many of this material change arches becomes reline arches as it´s next selected product.

mc_redo: how many of this material change arches becomes redo arches as it´s next selected product.

In database_month_in_and_out sheet you will find the orders of the report, bases on this information the counts and classification is made. Please see the “create characteristic” report below for a more detailed explanation of the about the meaning of the columns in there.

For the error sheet you need to take in count that this sheet contain the error on the database found where the data cleaning were made. This could by of two type, arch_error or amount_error, please look on the respectice column to filter and study the information. If it´s needed you can contact the platform department on nuvia smiles

Weekly_waiting_for_24z:

For the second option on the report you just need to update the information and select the month and range of weeks where you want to know the number of pmma arches waiting for 24z material change. This is the weekly counter of the pmma arches waiting for material change on nuvia lab for Alex´s report. On the screen you will see a table with this information, like this:

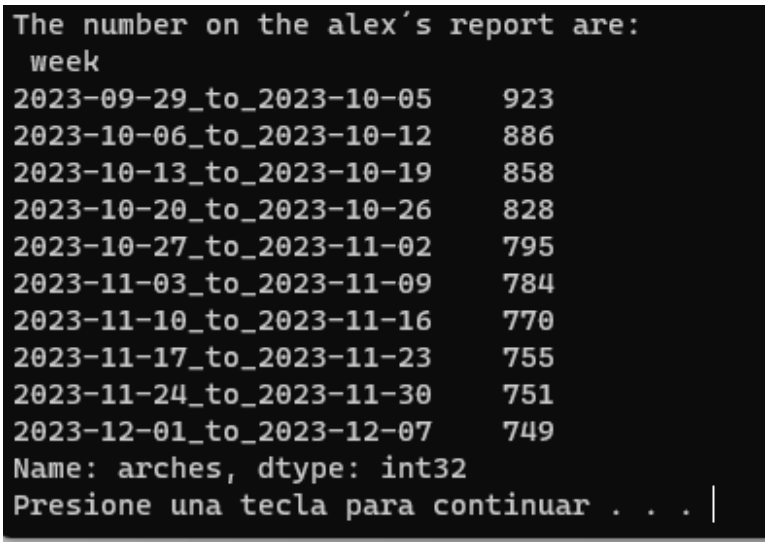
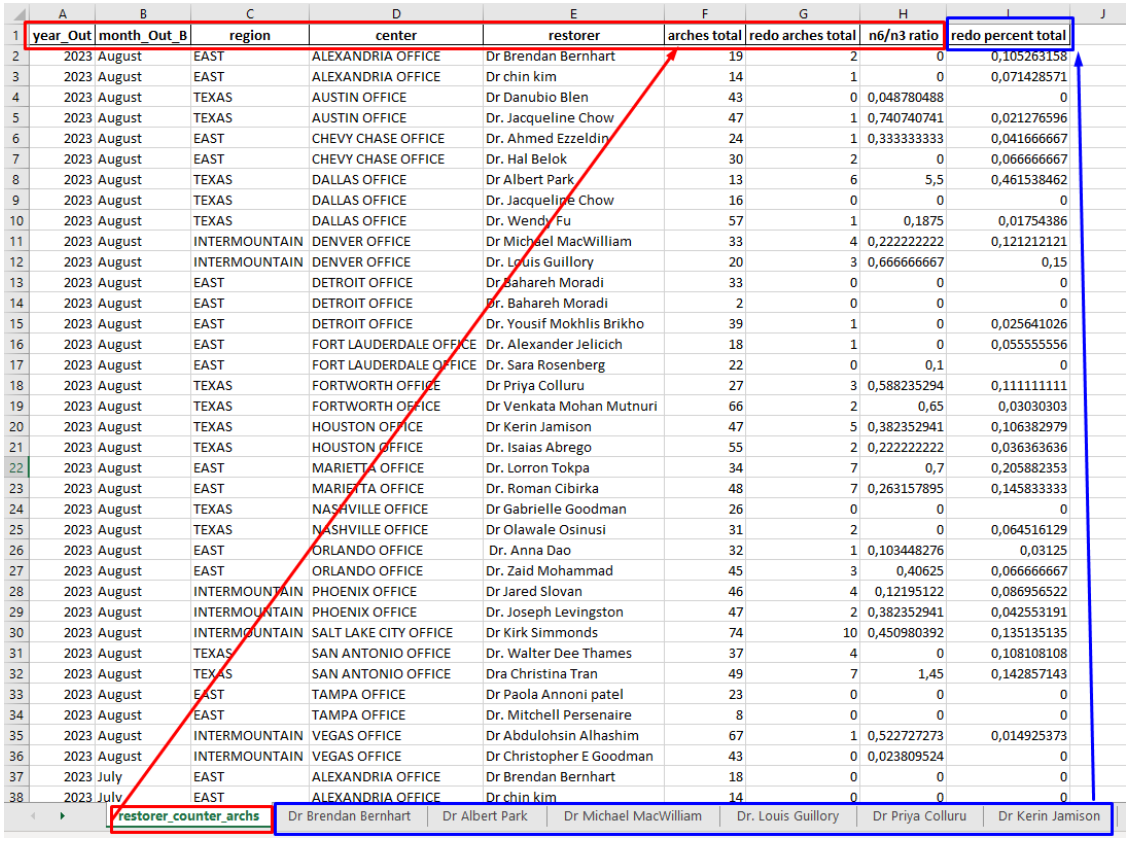


Image 2.0 : Screen of the report number 2, weekly_waiting_for_24z report.

Restorer_products:

On this report you will get the number of arches and redos arches by restorer/doctor. Also you will get a n6/n3 ratio number and redo percent by each characteristic (year , month, región, center, restorer) as you can see highlighted in red on image 3.0.



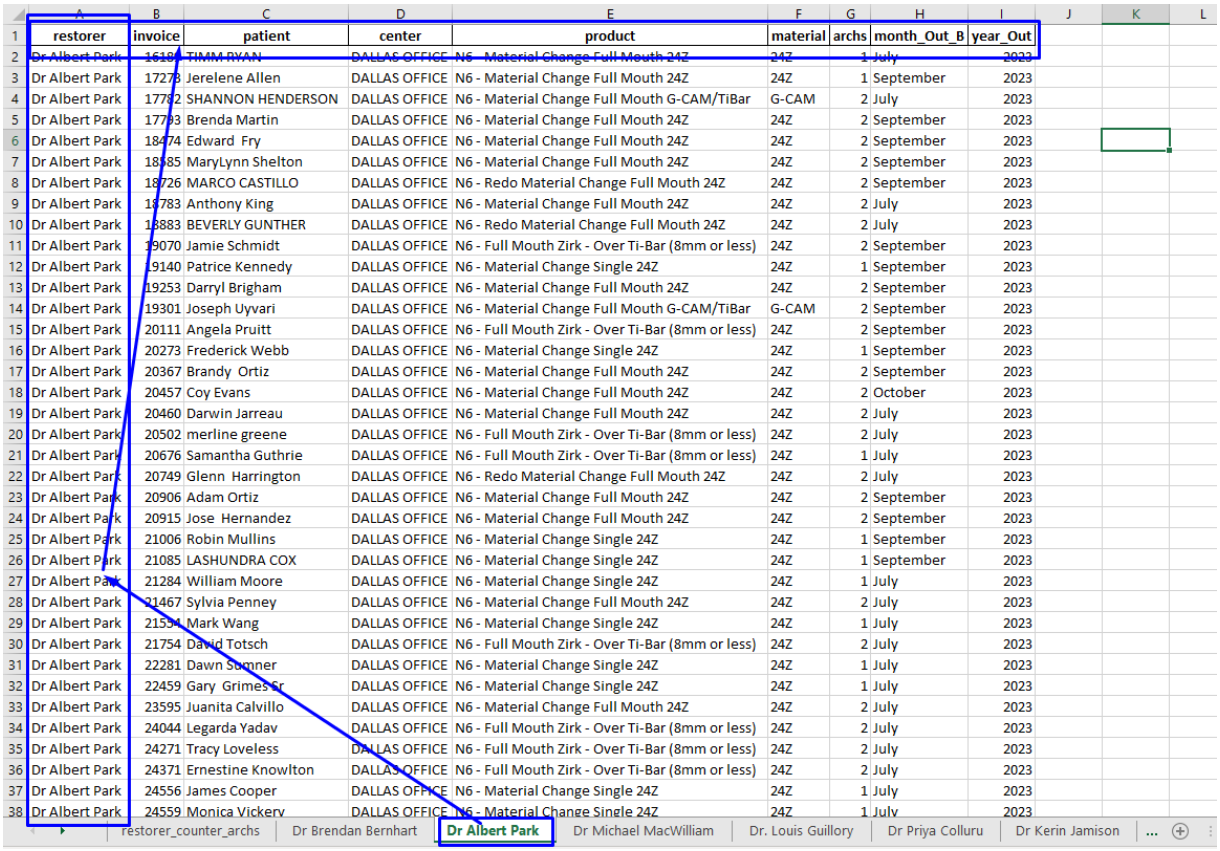
year_Out	month_Out_B	region	center	restorer	arches total	redo arches total	n6/n3 ratio	redo percent total
2023	August	EAST	ALEXANDRIA OFFICE	Dr Brendan Bernhart	19	2	0	0,105263158
2023	August	EAST	ALEXANDRIA OFFICE	Dr chin kim	14	1	0	0,071428571
2023	August	TEXAS	AUSTIN OFFICE	Dr Danubio Blen	43	0	0,048780488	0
2023	August	TEXAS	AUSTIN OFFICE	Dr. Jacqueline Chow	47	1	0,740740741	0,021276596
2023	August	EAST	CHEVY CHASE OFFICE	Dr. Ahmed Ezzeldin	24	1	0,333333333	0,041666667
2023	August	EAST	CHEVY CHASE OFFICE	Dr. Hal Belok	30	2	0	0,066666667
2023	August	TEXAS	DALLAS OFFICE	Dr Albert Park	13	6	5,5	0,461538462
2023	August	TEXAS	DALLAS OFFICE	Dr. Jacqueline Chow	16	0	0	0
2023	August	TEXAS	DALLAS OFFICE	Dr. Wendy Fu	57	1	0,1875	0,01754386
2023	August	INTERMOUNTAIN	DENVER OFFICE	Dr Michael MacWilliam	33	4	0,222222222	0,121212121
2023	August	INTERMOUNTAIN	DENVER OFFICE	Dr. Louis Guillory	20	3	0,666666667	0,15
2023	August	EAST	DETROIT OFFICE	Dr Bahareh Moradi	33	0	0	0
2023	August	EAST	DETROIT OFFICE	Dr. Bahareh Moradi	2	0	0	0
2023	August	EAST	DETROIT OFFICE	Dr. Yousif Mokhlis Brikho	39	1	0	0,025641026
2023	August	EAST	FORT LAUDERDALE OFFICE	Dr. Alexander Jelicich	18	1	0	0,055555556
2023	August	EAST	FORT LAUDERDALE OFFICE	Dr. Sara Rosenberg	22	0	0,1	0
2023	August	TEXAS	FORTWORTH OFFICE	Dr Priya Colluru	27	3	0,588235294	0,111111111
2023	August	TEXAS	FORTWORTH OFFICE	Dr Venkata Mohan Mutnuri	66	2	0,65	0,03030303
2023	August	TEXAS	HOUSTON OFFICE	Dr Kerin Jamison	47	5	0,382352941	0,106382979
2023	August	TEXAS	HOUSTON OFFICE	Dr. Isaias Abrego	55	2	0,222222222	0,036363636
2023	August	EAST	MARIETTA OFFICE	Dr. Lorron Tokpa	34	7	0,7	0,205882353
2023	August	EAST	MARIETTA OFFICE	Dr. Roman Cibirka	48	7	0,263157895	0,145833333
2023	August	TEXAS	NASHVILLE OFFICE	Dr Gabrielle Goodman	26	0	0	0
2023	August	TEXAS	NASHVILLE OFFICE	Dr Olawale Osinusi	31	2	0	0,064516129
2023	August	EAST	ORLANDO OFFICE	Dr. Anna Dao	32	1	0,103448276	0,03125
2023	August	EAST	ORLANDO OFFICE	Dr. Zaid Mohammad	45	3	0,40625	0,066666667
2023	August	INTERMOUNTAIN	PHOENIX OFFICE	Dr Jared Slovan	46	4	0,12195122	0,086956522
2023	August	INTERMOUNTAIN	PHOENIX OFFICE	Dr. Joseph Levingston	47	2	0,382352941	0,042553191
2023	August	INTERMOUNTAIN	SALT LAKE CITY OFFICE	Dr Kirk Simmonds	74	10	0,450980392	0,135135135
2023	August	TEXAS	SAN ANTONIO OFFICE	Dr. Walter Dee Thames	37	4	0	0,108108108
2023	August	TEXAS	SAN ANTONIO OFFICE	Dra Christina Tran	49	7	1,45	0,142857143
2023	August	EAST	TAMPA OFFICE	Dr Paola Annoni patel	23	0	0	0
2023	August	EAST	TAMPA OFFICE	Dr. Mitchell Persenaire	8	0	0	0
2023	August	INTERMOUNTAIN	VEGAS OFFICE	Dr Abdulohsin Alhashim	67	1	0,522727273	0,014925373
2023	August	INTERMOUNTAIN	VEGAS OFFICE	Dr Christopher E Goodman	43	0	0,023809524	0
2023	July	EAST	ALEXANDRIA OFFICE	Dr Brendan Bernhart	18	0	0	0
2023	July	EAST	ALEXANDRIA OFFICE	Dr chin kim	14	0	0	0

restorer_counter_archs | Dr Brendan Bernhart | Dr Albert Park | Dr Michael MacWilliam | Dr. Louis Guillory | Dr Priya Colluru | Dr Kerin Jamison

Image 3.0 : visual of the restorer counter arches file on the first sheet.

Finally if if the redo percent total of one restorer it´s higher than 0.1 (10%) the redo cases will get added on it´s sheet labeled by their names as it´s highlighted on blue on imagen 3.1. You should get this information on the path:

"nuvia_app_reports\results\restorer_counter_archs.xlsx"



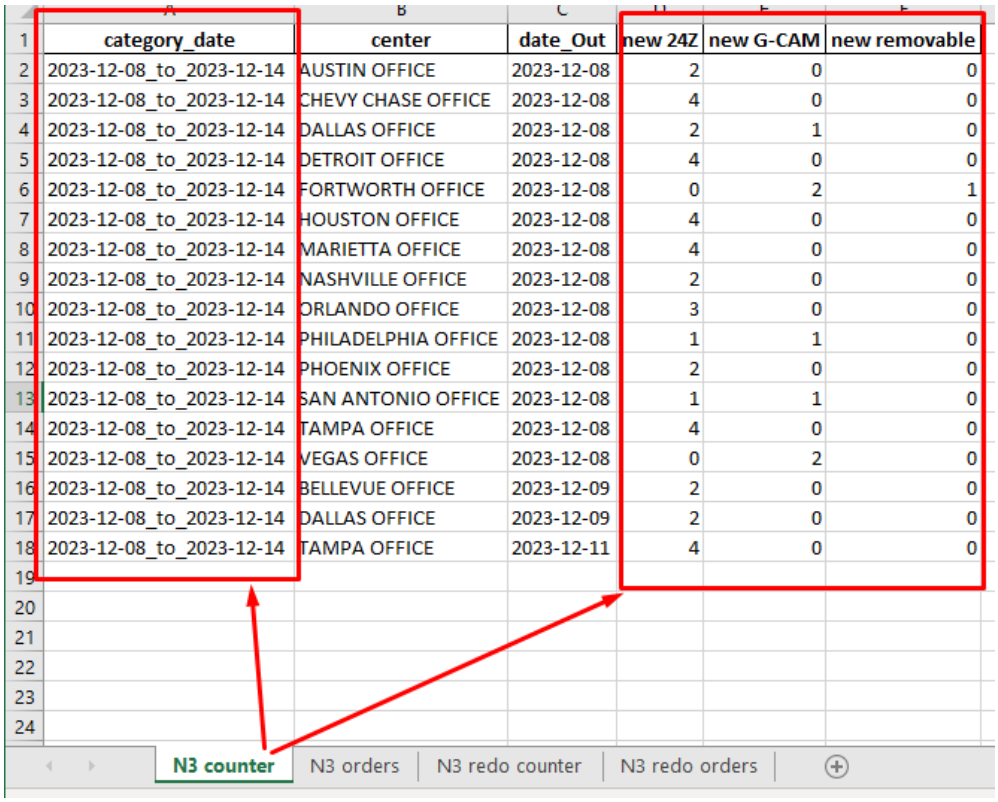
restorer	invoice	patient	center	product	material	archs	month_Out_B	year_Out
Dr Albert Park	16184	TIMM RYAN	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	1	July	2023
Dr Albert Park	17278	Jerelene Allen	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	1	September	2023
Dr Albert Park	17782	SHANNON HENDERSON	DALLAS OFFICE	N6 - Material Change Full Mouth G-CAM/TiBar	G-CAM	2	July	2023
Dr Albert Park	17793	Brenda Martin	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	18474	Edward Fry	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	18585	MaryLynn Shelton	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	18726	MARCO CASTILLO	DALLAS OFFICE	N6 - Redo Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	18783	Anthony King	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	July	2023
Dr Albert Park	18883	BEVERLY GUNTHER	DALLAS OFFICE	N6 - Redo Material Change Full Mouth 24Z	24Z	2	July	2023
Dr Albert Park	19070	Jamie Schmidt	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	2	September	2023
Dr Albert Park	19140	Patrice Kennedy	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	September	2023
Dr Albert Park	19253	Darryl Brigham	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	19301	Joseph Uyvari	DALLAS OFFICE	N6 - Material Change Full Mouth G-CAM/TiBar	G-CAM	2	September	2023
Dr Albert Park	20111	Angela Pruitt	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	2	September	2023
Dr Albert Park	20273	Frederick Webb	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	September	2023
Dr Albert Park	20367	Brandy Ortiz	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	20457	Coy Evans	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	October	2023
Dr Albert Park	20460	Darwin Jarreau	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	July	2023
Dr Albert Park	20502	merline greene	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	2	July	2023
Dr Albert Park	20676	Samantha Guthrie	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	1	July	2023
Dr Albert Park	20749	Glenn Harrington	DALLAS OFFICE	N6 - Redo Material Change Full Mouth 24Z	24Z	2	July	2023
Dr Albert Park	20906	Adam Ortiz	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	20915	Jose Hernandez	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	September	2023
Dr Albert Park	21006	Robin Mullins	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	September	2023
Dr Albert Park	21085	LASHUNDRA COX	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	September	2023
Dr Albert Park	21284	William Moore	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	July	2023
Dr Albert Park	21467	Sylvia Penney	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	July	2023
Dr Albert Park	21534	Mark Wang	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	July	2023
Dr Albert Park	21754	David Totsch	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	2	July	2023
Dr Albert Park	22281	Dawn Sumner	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	July	2023
Dr Albert Park	22459	Gary Grimes Sr	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	July	2023
Dr Albert Park	23595	Juanita Calvillo	DALLAS OFFICE	N6 - Material Change Full Mouth 24Z	24Z	2	July	2023
Dr Albert Park	24044	Legarda Yadav	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	2	July	2023
Dr Albert Park	24271	Tracy Loveless	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	2	July	2023
Dr Albert Park	24371	Ernestine Knowlton	DALLAS OFFICE	N6 - Full Mouth Zirk - Over Ti-Bar (8mm or less)	24Z	2	July	2023
Dr Albert Park	24556	James Cooper	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	July	2023
Dr Albert Park	24559	Monica Vickery	DALLAS OFFICE	N6 - Material Change Single 24Z	24Z	1	July	2023

Image 3.1 : Example of one doctor sheet information on the restorer counter arches file.

Accounting

On this report you will get the information of the arches daily updated by center and weekly_labeled. This information id classificated by arches N3 and redo N3 arches. For the first one you should see the ***"N3 counter"*** and ***"N3 orders"*** sheets. Where you will find the arch counts by : **caterogy_date, center , date_Out** (which it´s date of delivery on nuvialabs platform), those arches are separated on 3 categories : **new 24Z** , **new G-CAM** and **new removable** arches.

The original goal it´s count the arches by material but with the removable arches with fix arches one arch of G-CAM it´s delivery, so for that this column it´s added.



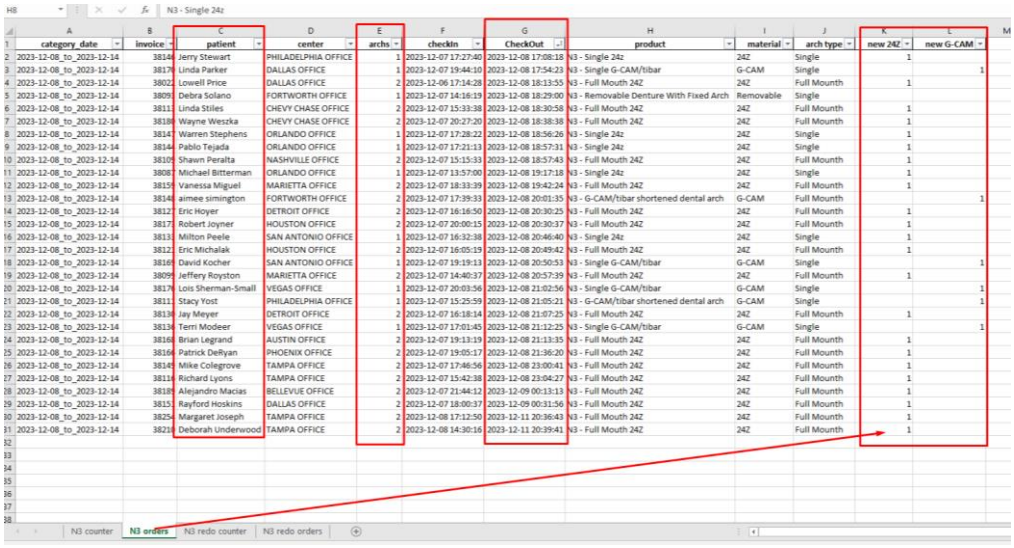
	category_date	center	date_Out	new 24Z	new G-CAM	new removable
2	2023-12-08_to_2023-12-14	AUSTIN OFFICE	2023-12-08	2	0	0
3	2023-12-08_to_2023-12-14	CHEVY CHASE OFFICE	2023-12-08	4	0	0
4	2023-12-08_to_2023-12-14	DALLAS OFFICE	2023-12-08	2	1	0
5	2023-12-08_to_2023-12-14	DETROIT OFFICE	2023-12-08	4	0	0
6	2023-12-08_to_2023-12-14	FORTWORTH OFFICE	2023-12-08	0	2	1
7	2023-12-08_to_2023-12-14	HOUSTON OFFICE	2023-12-08	4	0	0
8	2023-12-08_to_2023-12-14	MARIETTA OFFICE	2023-12-08	4	0	0
9	2023-12-08_to_2023-12-14	NASHVILLE OFFICE	2023-12-08	2	0	0
10	2023-12-08_to_2023-12-14	ORLANDO OFFICE	2023-12-08	3	0	0
11	2023-12-08_to_2023-12-14	PHILADELPHIA OFFICE	2023-12-08	1	1	0
12	2023-12-08_to_2023-12-14	PHOENIX OFFICE	2023-12-08	2	0	0
13	2023-12-08_to_2023-12-14	SAN ANTONIO OFFICE	2023-12-08	1	1	0
14	2023-12-08_to_2023-12-14	TAMPA OFFICE	2023-12-08	4	0	0
15	2023-12-08_to_2023-12-14	VEGAS OFFICE	2023-12-08	0	2	0
16	2023-12-08_to_2023-12-14	BELLEVUE OFFICE	2023-12-09	2	0	0
17	2023-12-08_to_2023-12-14	DALLAS OFFICE	2023-12-09	2	0	0
18	2023-12-08_to_2023-12-14	TAMPA OFFICE	2023-12-11	4	0	0
19						
20						
21						
22						
23						
24						

N3 counter | N3 orders | N3 redo counter | N3 redo orders

Image 4.0 : N3 counter sheet on accouting report, count of the new arches on nuvia platform.

For the N3 orders there are added the specific orders that are counted on the N3 orders sheet for a more detailed description. As you can see on the image 4.1, there are new columns are added as: **invoice, patient , checkIn , checkOut, product , material, arch type , new 24z and new G-CAM.**

The last two are the check column that inform if that order it´s counted as a new 24z or a new G-CAM arches.

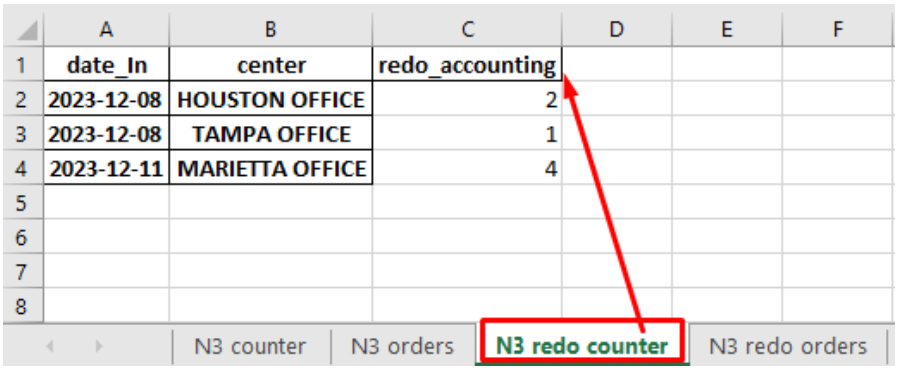


category_date	invoice	patient	center	archs	checkIn	CheckOut	product	material	arch type	new 24Z	new G-CAM
2023-12-08_to_2023-12-14	38144	Jerry Stewart	PHILADELPHIA OFFICE	1	2023-12-07 17:27:40	2023-12-08 17:08:18	N3 - Single 24z	24Z	Single	1	
2023-12-08_to_2023-12-14	38179	Linda Parker	DALLAS OFFICE	1	2023-12-07 19:44:10	2023-12-08 17:54:23	N3 - Single G-CAM/tibar	G-CAM	Single		1
2023-12-08_to_2023-12-14	38022	Lowell Price	DALLAS OFFICE	2	2023-12-06 17:14:28	2023-12-08 18:13:55	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38095	Debra Solano	FORTWORTH OFFICE	1	2023-12-07 14:16:19	2023-12-08 18:29:00	N3 - Removable Denture With Fixed Arch	Removable	Single		
2023-12-08_to_2023-12-14	38111	Linda Stiles	CHEVY CHASE OFFICE	2	2023-12-07 15:33:38	2023-12-08 18:30:58	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38188	Wayne Weszka	CHEVY CHASE OFFICE	2	2023-12-07 20:27:20	2023-12-08 18:38:38	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38147	Warren Stephens	ORLANDO OFFICE	1	2023-12-07 17:28:22	2023-12-08 18:56:26	N3 - Single 24z	24Z	Single	1	
2023-12-08_to_2023-12-14	38144	Pablo Tejada	ORLANDO OFFICE	1	2023-12-07 17:21:13	2023-12-08 18:57:31	N3 - Single 24z	24Z	Single	1	
2023-12-08_to_2023-12-14	38105	Shawn Peralta	NASHVILLE OFFICE	2	2023-12-07 15:15:33	2023-12-08 18:57:43	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38087	Michael Bitterman	ORLANDO OFFICE	1	2023-12-07 13:57:00	2023-12-08 19:17:18	N3 - Single 24z	24Z	Single	1	
2023-12-08_to_2023-12-14	38159	Vanessa Miguel	MARIETTA OFFICE	2	2023-12-07 18:33:39	2023-12-08 19:42:24	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38146	aimee simington	FORTWORTH OFFICE	2	2023-12-07 17:39:33	2023-12-08 20:01:35	N3 - G-CAM/tibar shortened dental arch	G-CAM	Full Mounth		1
2023-12-08_to_2023-12-14	38127	Eric Hoyer	DETROIT OFFICE	2	2023-12-07 16:16:50	2023-12-08 20:30:25	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38177	Robert Joyner	HOUSTON OFFICE	2	2023-12-07 20:00:15	2023-12-08 20:30:37	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38133	Milton Peele	SAN ANTONIO OFFICE	1	2023-12-07 16:32:38	2023-12-08 20:46:40	N3 - Single 24z	24Z	Single	1	
2023-12-08_to_2023-12-14	38122	Eric Michalak	HOUSTON OFFICE	2	2023-12-07 16:05:19	2023-12-08 20:49:42	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38169	David Kocher	SAN ANTONIO OFFICE	1	2023-12-07 19:19:13	2023-12-08 20:50:53	N3 - Single G-CAM/tibar	G-CAM	Single		1
2023-12-08_to_2023-12-14	38099	Jeffery Royston	MARIETTA OFFICE	2	2023-12-07 14:40:37	2023-12-08 20:57:39	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38179	Lois Sherman-Small	VEGAS OFFICE	1	2023-12-07 20:03:56	2023-12-08 21:02:56	N3 - Single G-CAM/tibar	G-CAM	Single		1
2023-12-08_to_2023-12-14	38111	Stacy Yost	PHILADELPHIA OFFICE	1	2023-12-07 15:25:59	2023-12-08 21:05:21	N3 - G-CAM/tibar shortened dental arch	G-CAM	Single		1
2023-12-08_to_2023-12-14	38136	Jay Meyer	DETROIT OFFICE	2	2023-12-07 16:18:14	2023-12-08 21:07:25	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38136	Terri Modeer	VEGAS OFFICE	1	2023-12-07 17:01:45	2023-12-08 21:12:25	N3 - Single G-CAM/tibar	G-CAM	Single		1
2023-12-08_to_2023-12-14	38166	Brian Legrand	AUSTIN OFFICE	2	2023-12-07 19:13:19	2023-12-08 21:13:35	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38164	Patrick DeRyan	PHOENIX OFFICE	2	2023-12-07 19:05:17	2023-12-08 21:36:20	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38145	Mike Colegrove	TAMPA OFFICE	2	2023-12-07 17:46:56	2023-12-08 23:00:41	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38114	Richard Lyons	TAMPA OFFICE	2	2023-12-07 15:42:38	2023-12-08 23:04:27	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38189	Alejandro Macias	BELLEVUE OFFICE	2	2023-12-07 21:44:12	2023-12-09 00:13:13	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38151	Rayford Hoskins	DALLAS OFFICE	2	2023-12-07 18:00:37	2023-12-09 00:31:56	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38254	Margaret Joseph	TAMPA OFFICE	2	2023-12-08 17:12:50	2023-12-11 20:36:43	N3 - Full Mouth 24Z	24Z	Full Mounth	1	
2023-12-08_to_2023-12-14	38216	Deborah Underwood	TAMPA OFFICE	2	2023-12-08 14:30:16	2023-12-11 20:39:41	N3 - Full Mouth 24Z	24Z	Full Mounth	1	

N3 counter | N3 orders | N3 redo counter | N3 redo orders

Image 4.1 : N3 orders for the new arches delivered on nuvia platform.

Finally for the count of N3 redo arches we have the ***"N3 redo counter"*** and ***"N3 redo orders"*** sheets where you will get the daily information of the redo arches for the N3 products. On the first sheet, imagen 4.2, it´s shows the redo accouting arch:

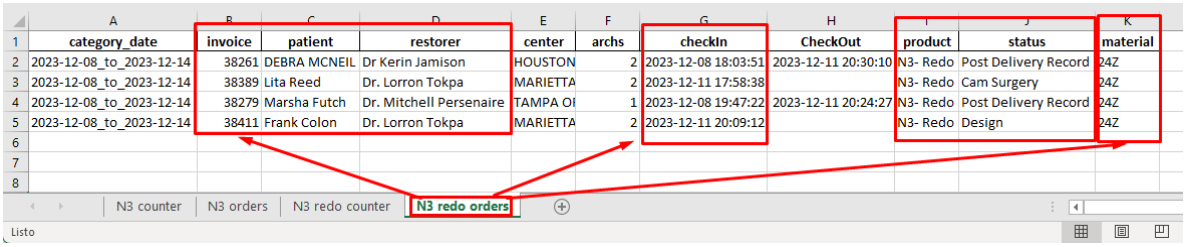


	A	B	C	D	E	F
1	date_In	center	redo_accounting			
2	2023-12-08	HOUSTON OFFICE	2			
3	2023-12-08	TAMPA OFFICE	1			
4	2023-12-11	MARIETTA OFFICE	4			
5						
6						
7						
8						

N3 counter | N3 orders | N3 redo counter | N3 redo orders

Imagen 4.2: N3 redo counter sheet on accouting report, count of the new created redo arches on nuvia platform.

and the detailed orders on the second sheet as it´s seen on image 4.3:



	A	B	C	D	E	F	G	H	I	J	K
1	category_date	invoice	patient	restorer	center	archs	checkIn	CheckOut	product	status	material
2	2023-12-08_to_2023-12-14	38261	DEBRA MCNEIL	Dr Kerin Jamison	HOUSTON	2	2023-12-08 18:03:51	2023-12-11 20:30:10	N3- Redo	Post Delivery Record	24Z
3	2023-12-08_to_2023-12-14	38389	Lita Reed	Dr. Lorron Tokpa	MARIETTA	2	2023-12-11 17:58:38		N3- Redo	Cam Surgery	24Z
4	2023-12-08_to_2023-12-14	38279	Marsha Futch	Dr. Mitchell Persenaire	TAMPA OI	1	2023-12-08 19:47:22	2023-12-11 20:24:27	N3- Redo	Post Delivery Record	24Z
5	2023-12-08_to_2023-12-14	38411	Frank Colon	Dr. Lorron Tokpa	MARIETTA	2	2023-12-11 20:09:12		N3- Redo	Design	24Z
6											
7											
8											

N3 counter | N3 orders | N3 redo counter | N3 redo orders

Listo

Imagen 4.3 : Redo orders for N3 products.

A Collaborative report between the SLC team, regionals, and managers with the Platform data team where the number of new arches is reported. Those are reported on the link below:

https://docs.google.com/spreadsheets/d/1b0nwSsja8THF2XNR2m7eHwy31JQOooDnN36EO6RXlZ8/edit?usp=sharing

Compare_clinic_patients

For this report please update the sheet names and make some checks on the excel file you'll use to compare this two patients list. Those are : both excel need to have a "patient" column and the clinic excel need to have "Production center" as the name of the offices column.

Then please make sure to take the ***Production+by+center_{MONTH}.xlsx*** file from the clinic and make uploaded on the path ***nuvia_app_reports/data/clinic_data/*** on image 5.0 you have and example.

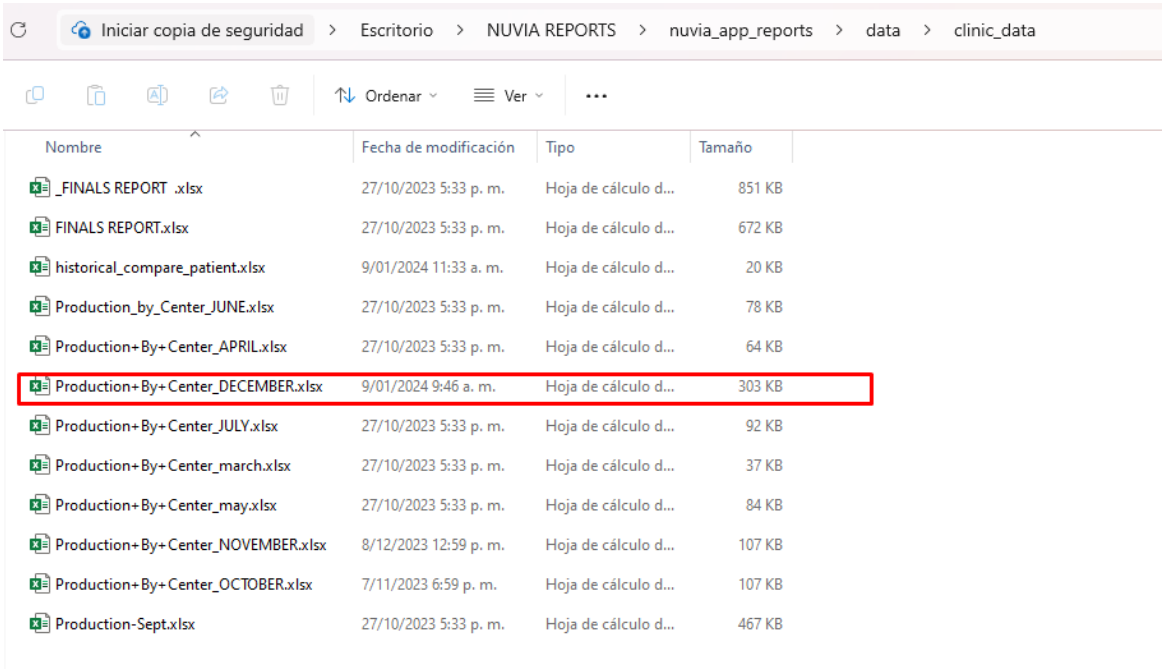


Image 5.0 : clinic_data path and clinic files names.

Now you can ask for a report of those files. For this example we select december 2023 as you may see on image 5.1 below.

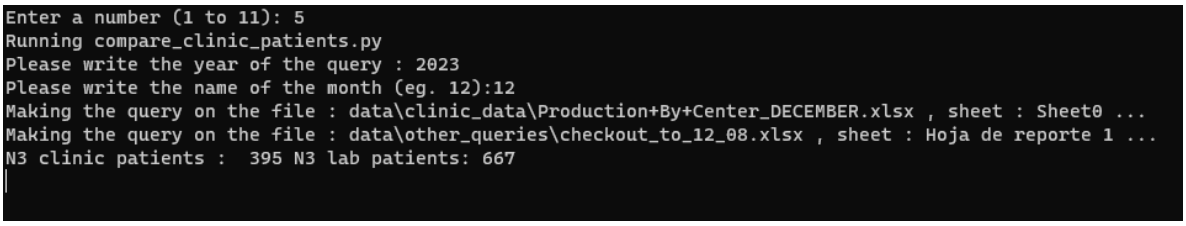


Image 5.1: interface and inputs on the compare patient report, option 5.

This script was created for a comparative beetween the clinic and laboratory data using the patient names as an indexer to merge this data. The goal it´s verify that all the clinic´s patients are on the lab platform. For this propouse we merge this two list of patients but because in some cases for one patient those two names are not equals a new metric that give the percent of similitud are created as you can see on image 5.2.

1	clinic_name	lab_name	similitud_percent
385	NIELWEN CAMPOS	NIELWEN CAMPOS	100
386	CHRISTOPHER LOCK	CHRISTOPHER LOCK	100
387	LITA REED	LITA REED	100
388	MANUEL DELUNA	MANUEL DELUNA	100
389	DIANA COMMANDER	DIANA COMMANDER	100
390	IRENE GUTIERREZ	IRENE GUTIERREZ	100
391	MICHAEL AYERS	MICHAEL AYERS	100
392	BENJAMIN SANDOVAL	BENJAMIN SANDOVAL	100
393	RAMON MOJICA	RAMON MOJICA	100
394	MARY PEDEN	MARY PEDEN	100
395	WALTER UMANA	WALTER UMANA	100
396	PAULA HOLMAN	PAULA HOLMAN	100
397	CLIFFORD GREGORY	CLIFFORD GREGORY	100
398	WILLIAM DEVIN	WILLIAM DEVIN	100
399	JOHN DAVISON	JOHN DAVISON	100
400	MERLY RACOMA	MERLY RACOMA	100
401	JON PITTS	JON PITTS	100
402	DERREK STEWART	DERREK STEWART	100
403	ERIC JACOBSON	ERIC JACOBSON	100
404	ELIZABETH YOUNG WOLF	ELIZABETH YOUNGWOLF	97,44
405	MOHAMMED SULAIVANI	MOHAMMED SULAIVANI	97,3
406	CANDACE MACPHERSON	CANDACE MACPHERSON	97,3
407	MARY JANE GONZALEZ	MARY JANE GONZALEZ	97,3
408	FREDDIE WALTON JR.	FREDDIE WALTON JR	97,14
409	CLARENCE HUTCHINS	CLARENCE HUTCHINS	97,14
410	ROLAND STRICKLAND	ROLAND STRICKLAND	97,14
411	DONALD CUTCHEMBER	DONALD CUTCHEMBER	97,14
412	ANNA JOHNS-DUBOIS	ANNA JOHNSDUBOIS	96,97
413	ENRIQUE PIMENTEL	ENRIQUE PIMENTEL	96,97
414	MAURICE BLACKMAN	MAURICE BLACKMAN	96,97
415	MARGARTET GLOSSON	MARGARET GLOSSON	96,97
416	KIMBERLY ZAGORY	KIMBERLY ZAGORY	96,77
417	MATTHEW JACKSON	MATTHEW JACKSON	96,77
418	PATRICA AUCLAIR	PATRICIA AUCLAIR	96,77
419	ZONDRIA JOHNSON	ZONDRIA JOHNSON	96,77

Imagen 5.2: Comparative list of the patients on clinic and lab platforms.

As you can see on the image 5.3 for the first 403 patients the silimitud_percent it´s equal to 100 and the patient it´s correctly choosed. By experience the on the creation of this report, from the data and platform team we saw that a 80% on this similitud_percent column you shouldn´t have problems on the identification of the patients. For the cases lower that than we look for this patient manually making some subjetic variations on the name and taking surgery date, and center´s name as criteria of selection.

1	clinic_name	lab_name	similitud_percent
483	PENNY DAVENPORT	PENELOPE DAVENPORT	78,79
484	TERESA TAYLOR (NASH)	TERESA TAYLOR	78,79
485	JOSE RABAGO	JOSE LUIS RABAGO	78,57
486	DEBBIE WEISS	DEBRA WEISS	78,26
487	BILL MASON	WILLIAM MASON	78,26
488	MARGARET "PEGGY" ERNST	MARGARET ERNST	77,78
489	ALFREDO "FREDDIE" RODRIGUEZ	ALFREDO RODRIGUEZ	77,27
490	DIANA DENTAL ADDICKS	DIANA ADDICKS	76,47
491	MICHAEL "SHAYNE" GEISER	MICHAEL GEISER	75,68
492	LENA SUTTONSTROMAN	LENA SUTTON	73,33
493	CHRISTI NIELSON	TIM NELSON	72
494	VIOLA ARNOLD	RHONDA ARNOLD	72
495	KATHY SHENEFELT	BONITA SHENEFELT	70,97
496	SCOTT ANTOL	SCOTT TAYLOR	69,57
497	BERNICE "NETTIE" MOORE	NETTIE MOORE	68,57
498	JEAN ANN THACKER	JEAN ANN	66,67
499	PAUL QUIGLEY	CHARLOTTE QUIGLEY	66,67
500	GENE MAGGI	GENE HILL	63,16
501	JEFF KENNEDY	GREGORY KENNEY	61,54
502			

Image 5.2 : list of patients with silimitud_percent lest that 85%.

And it´s not until the patient 483 that we have problem with the selection of the patient. Those cases are manually choosen as we say before.

Flux_analysis

This a report of the behavior´s arches between one month and another, this quantify how many N3 surgical arches becomes redo arches of different other products on posterior months.

To access at this report make sure to have the updated information for the months you want to study, after you initiate the **“nuvia_app_reports.bat”** file please select the option 6. Later select the year, the months of the start and finish the analysis and the description column that you want to use to describe flux on the arches. If any information it´s empty then the program will select the default values as you can see on the imagen 6.0.

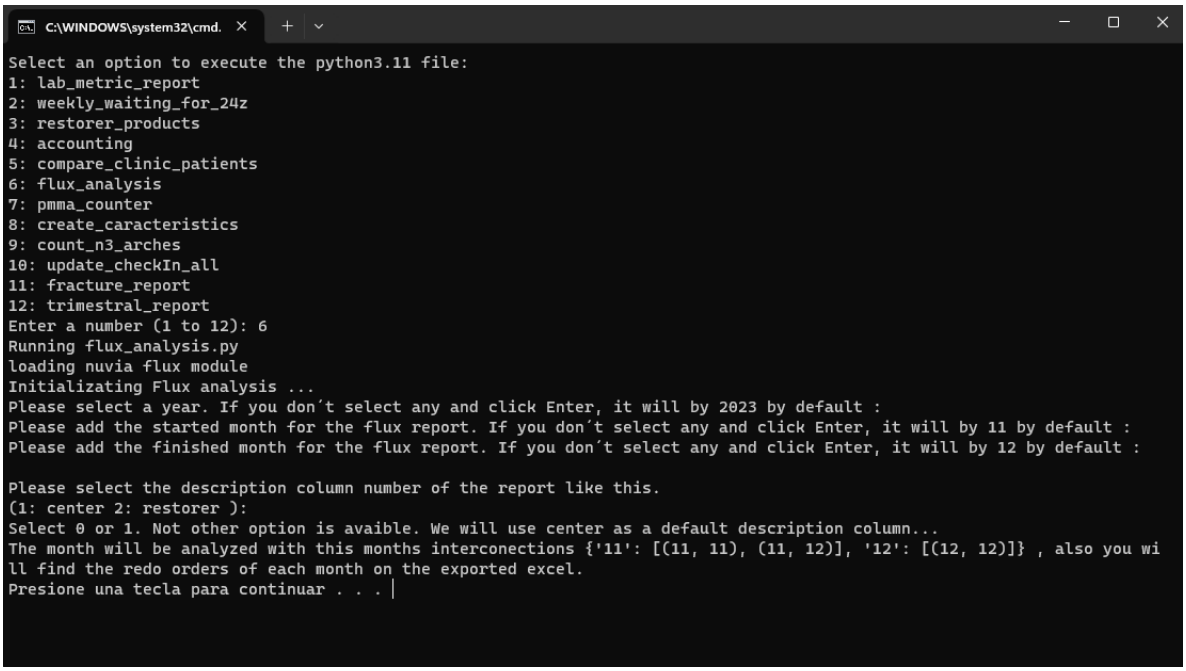


Image 6.0 : Selection and creation of the nuvia Flux report.

The program will start and you will see a empty space, please give it some minutes to count the products and made the relations it needs. Now you should see a message of the analysis that the program made. Now please look for the exported report on the folder ***". \nuvia_app_reports\results\flux_reports".*** As you can see in the image 6.1 it was created 4 diference excels files, two for center and two for restorer, each one for every option avaible on the description column.

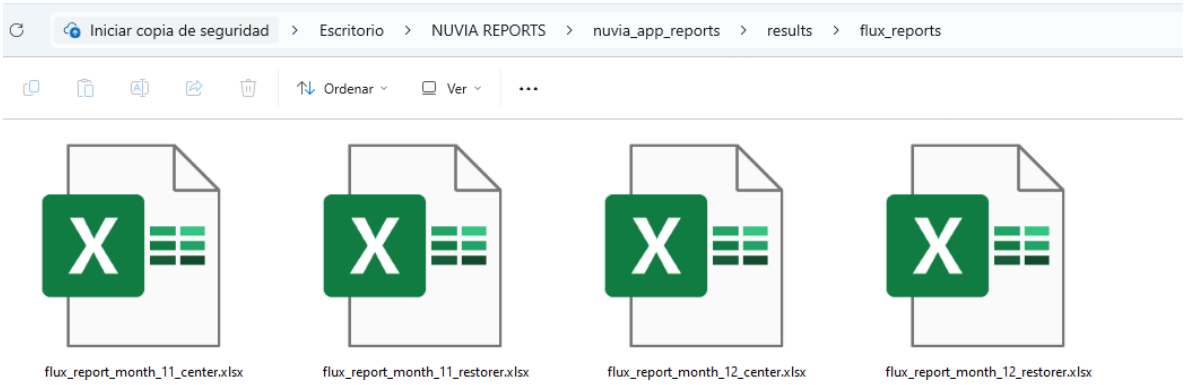


Image 6.1:

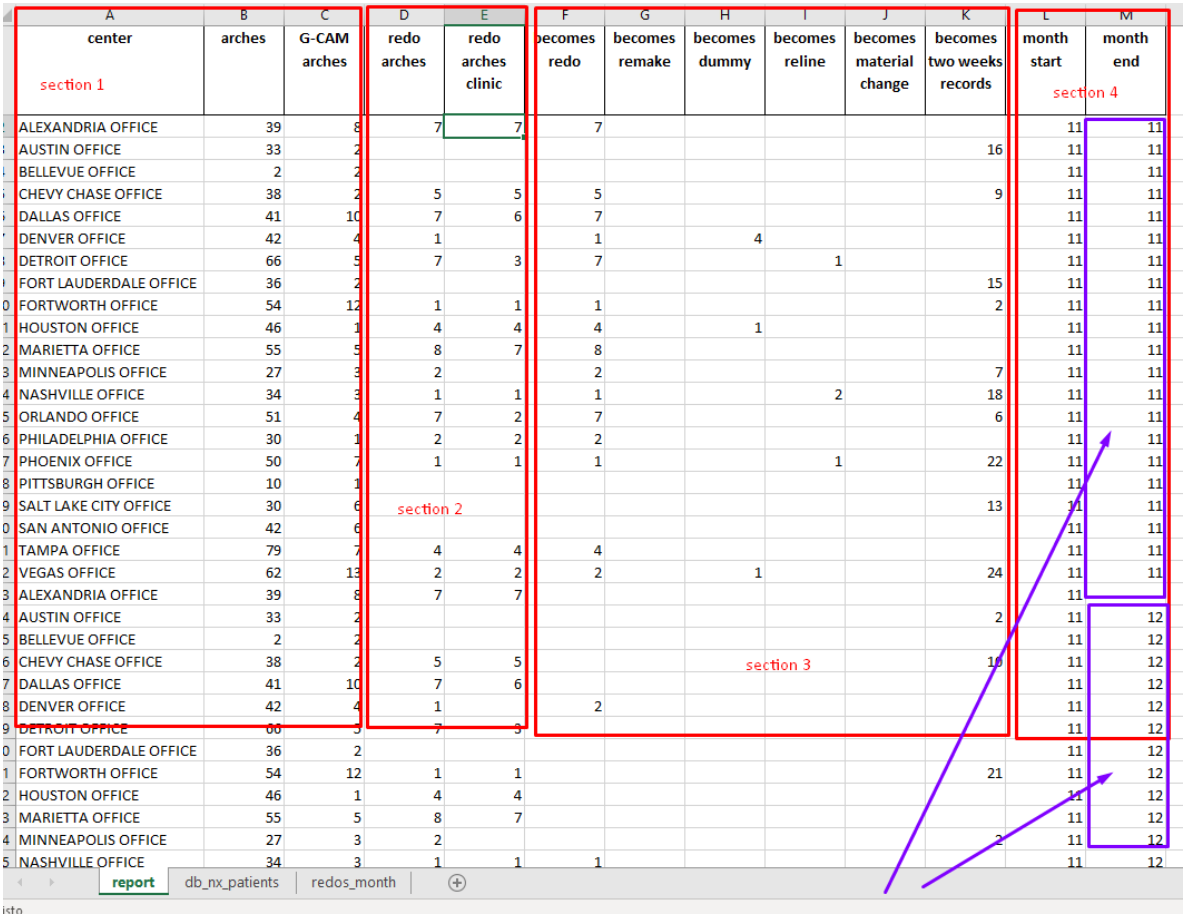
Let´s take “flux_report_month_11_center.xlsx” as an example, on image 6.2 you’ll find three different sheets named as : “report, db_nx_patient, redos_month”. On the first one there will be a table with the number of arches by center and some characteristics that it’ll be described below by sections.

Section 1: Here are the center’s names, number of N3 product´s arches and how many was made on G-CAM material.

Section 2: Here are the redo arches of the month by center and how many of then were taken as clinic on the responsability party part.

Section 3: Here are the N3 arches that becomes diferents products as redos, remake, dummy, reline, material change or to weeks records on the history of the patient. This change on the product could happen on the same month or on another one. For that, the section 4 was created.

Section 4: Here are the month where the surgery was made in the column named **month start** and the month where the change of the product was made in the column named **month end**.



center	arches	G-CAM arches	redo arches	redo arches clinic	becomes redo	becomes remake	becomes dummy	becomes reline	becomes material change	becomes two weeks records	month start	month end
ALEXANDRIA OFFICE	39	8	7	7	7						11	11
AUSTIN OFFICE	33	2								16	11	11
BELLEVUE OFFICE	2	2									11	11
CHEVY CHASE OFFICE	38	2	5	5	5					9	11	11
DALLAS OFFICE	41	10	7	6	7						11	11
DENVER OFFICE	42	4	1		1		4				11	11
DETROIT OFFICE	66	5	7	3	7			1			11	11
FORT LAUDERDALE OFFICE	36	2								15	11	11
FORTWORTH OFFICE	54	12	1	1	1					2	11	11
HOUSTON OFFICE	46	1	4	4	4		1				11	11
MARIETTA OFFICE	55	5	8	7	8						11	11
MINNEAPOLIS OFFICE	27	3	2		2					7	11	11
NASHVILLE OFFICE	34	3	1	1	1			2		18	11	11
ORLANDO OFFICE	51	4	7	2	7					6	11	11
PHILADELPHIA OFFICE	30	1	2	2	2						11	11
PHOENIX OFFICE	50	7	1	1	1			1		22	11	11
PITTSBURGH OFFICE	10	1									11	11
SALT LAKE CITY OFFICE	30	6								13	11	11
SAN ANTONIO OFFICE	42	6									11	11
TAMPA OFFICE	79	7	4	4	4						11	11
VEGAS OFFICE	62	13	2	2	2		1			24	11	11
ALEXANDRIA OFFICE	39	8	7	7							11	
AUSTIN OFFICE	33	2								2	11	12
BELLEVUE OFFICE	2	2									11	12
CHEVY CHASE OFFICE	38	2	5	5						10	11	12
DALLAS OFFICE	41	10	7	6							11	12
DENVER OFFICE	42	4	1		2						11	12
DETROIT OFFICE	66	5	7	3							11	12
FORT LAUDERDALE OFFICE	36	2									11	12
FORTWORTH OFFICE	54	12	1	1						21	11	12
HOUSTON OFFICE	46	1	4	4							11	12
MARIETTA OFFICE	55	5	8	7							11	12
MINNEAPOLIS OFFICE	27	3	2							2	11	12
NASHVILLE OFFICE	34	3	1	1	1						11	12

Image 6.2 : flux report of the arches from n3 product to other products.

Finally the **db_nx_patient** and the **redos_month** sheets have the orders of all the products that are counted on the report and the redo arches that belong to the month of the report.

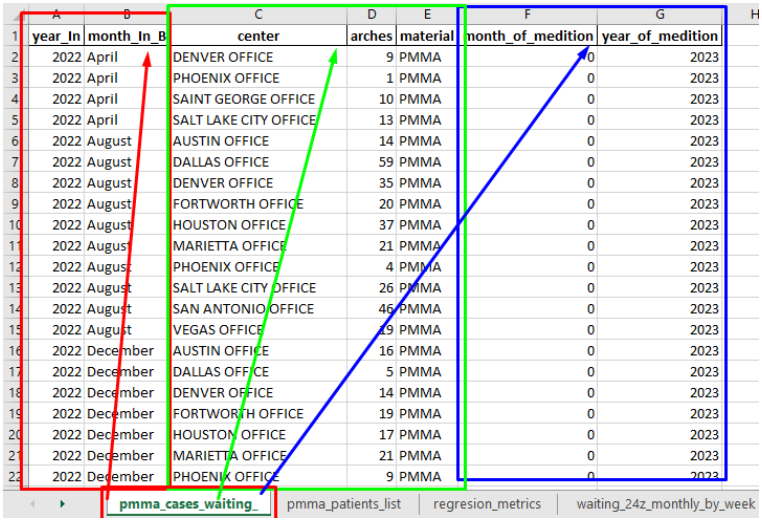
As for the other 3 excels files exported on the flux_report folder (image 6.1) they have a similar structure, taking in count that the filex with the name **_restorer** on they names have an analysis by restorer, and the logical of the report it based on the combinations of the month start and it´s different futures months end. That it´s for 11 it'll be 11 and 12 but from 12 it should be only 12 for the year 2023.

Pmma_counter

A report of the number of arches made on PMMA waiting for a material change on 24Z. Please look for the excel file on the path :

".\ nuvia_app_reports\results\waiting_for_24z.xlsx"

On this document you can find a list of sheet that will be explained bellow. The first one it´s named 'pmma_cases_waiting_' you will find 3 differents group of columns as we shown on the image 7.0. With the red box you can find the year and month for the creation of the order with the pmma arches. With the green box it´showed the center, sum of arches and material, for this last one it has two values : PMMA and G-CAM as the possible materials that are used on this type of products. On the other hand, in the blue box you will find the month an the year of medition of this quantities, note that this it´s different from the month and year of the creation of the products, this columns on the blue box are the period of time when it was counted the quantity of this type of arches by center and materials.



	A	B	C	D	E	F	G	H
1	year_In	month_In_B	center	arches	material	month_of_medition	year_of_medition	
2	2022	April	DENVER OFFICE	9	PMMA	0	2023	
3	2022	April	PHOENIX OFFICE	1	PMMA	0	2023	
4	2022	April	SAINT GEORGE OFFICE	10	PMMA	0	2023	
5	2022	April	SALT LAKE CITY OFFICE	13	PMMA	0	2023	
6	2022	August	AUSTIN OFFICE	14	PMMA	0	2023	
7	2022	August	DALLAS OFFICE	59	PMMA	0	2023	
8	2022	August	DENVER OFFICE	35	PMMA	0	2023	
9	2022	August	FORTWORTH OFFICE	20	PMMA	0	2023	
10	2022	August	HOUSTON OFFICE	37	PMMA	0	2023	
11	2022	August	MARIETTA OFFICE	21	PMMA	0	2023	
12	2022	August	PHOENIX OFFICE	4	PMMA	0	2023	
13	2022	August	SALT LAKE CITY OFFICE	26	PMMA	0	2023	
14	2022	August	SAN ANTONIO OFFICE	46	PMMA	0	2023	
15	2022	August	VEGAS OFFICE	19	PMMA	0	2023	
16	2022	December	AUSTIN OFFICE	16	PMMA	0	2023	
17	2022	December	DALLAS OFFICE	5	PMMA	0	2023	
18	2022	December	DENVER OFFICE	14	PMMA	0	2023	
19	2022	December	FORTWORTH OFFICE	19	PMMA	0	2023	
20	2022	December	HOUSTON OFFICE	17	PMMA	0	2023	
21	2022	December	MARIETTA OFFICE	21	PMMA	0	2023	
22	2022	December	PHOENIX OFFICE	9	PMMA	0	2023	

pmma_cases_waiting_ | pmma_patients_list | regresion_metrics | waiting_24z_monthly_by_week

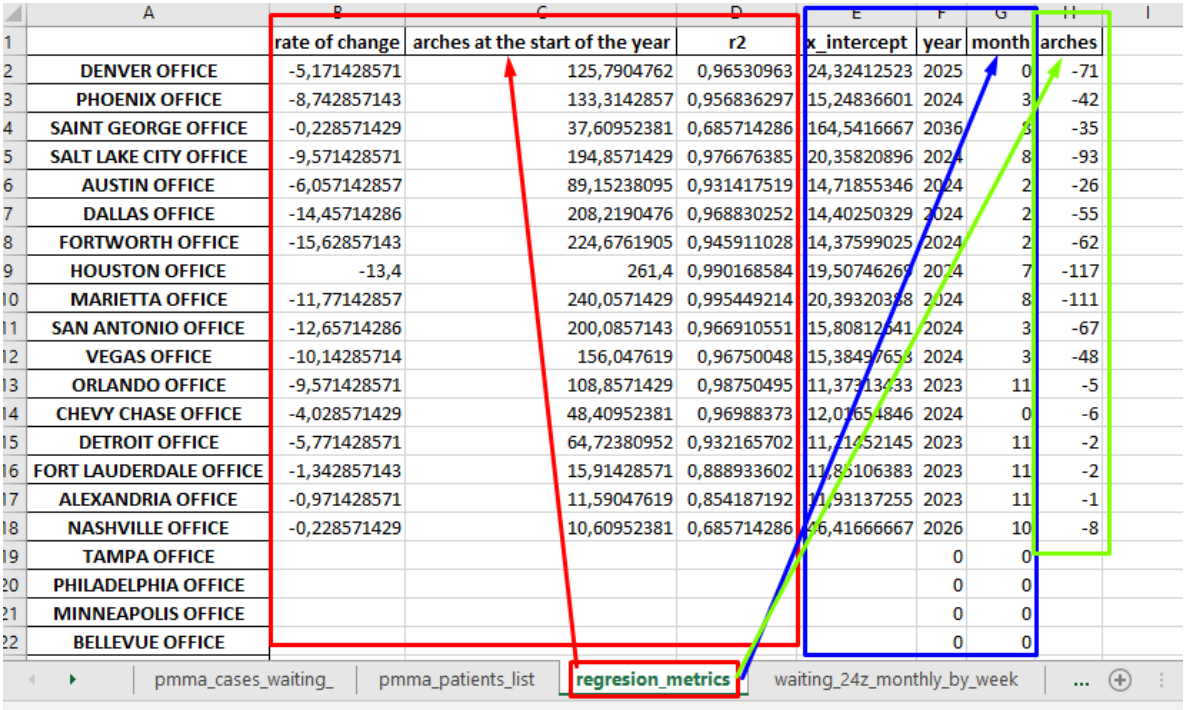
Image 7.0 : pmma_cases_waiting_ sheet on the pmma_counter report.

On the 'pmma_patients_list' are the orders of the patients waiting for 24z material change with different categories as :

invoice	**patient**	**restorer**	**center**	**archs**	**checkIn**	**CheckOut**	**amount**
product	**month_In**	**month_Out**	**diff_days**	**region**	**product class**	**material**	**arch type**
redo type	**diff_hour**	**delivery_on_time**	**month_In_B**	**year_In**	**month_Out_B**	**year_Out**	

Table 7.1 : Columns on ***waiting_for_24z.xlsx*** file on the sheet ***pmma_patients_list.***

For the three sheet labeled as “regresion_metrics”



	A	B	C	D	E	F	G	H	I
1		rate of change	arches at the start of the year	r2	x_intercept	year	month	arches	
2	DENVER OFFICE	-5,171428571	125,7904762	0,96530963	24,32412523	2025	0	-71	
3	PHOENIX OFFICE	-8,742857143	133,3142857	0,956836297	15,24836601	2024	3	-42	
4	SAINT GEORGE OFFICE	-0,228571429	37,60952381	0,685714286	164,5416667	2036	6	-35	
5	SALT LAKE CITY OFFICE	-9,571428571	194,8571429	0,976676385	20,35820896	2024	8	-93	
6	AUSTIN OFFICE	-6,057142857	89,15238095	0,931417519	14,71855346	2024	2	-26	
7	DALLAS OFFICE	-14,45714286	208,2190476	0,968830252	14,40250329	2024	2	-55	
8	FORTWORTH OFFICE	-15,62857143	224,6761905	0,945911028	14,37599025	2024	2	-62	
9	HOUSTON OFFICE	-13,4	261,4	0,990168584	19,50746269	2024	7	-117	
10	MARIETTA OFFICE	-11,77142857	240,0571429	0,995449214	20,39320388	2024	8	-111	
11	SAN ANTONIO OFFICE	-12,65714286	200,0857143	0,966910551	15,80812641	2024	3	-67	
12	VEGAS OFFICE	-10,14285714	156,047619	0,96750048	15,38497653	2024	3	-48	
13	ORLANDO OFFICE	-9,571428571	108,8571429	0,98750495	11,37313433	2023	11	-5	
14	CHEVY CHASE OFFICE	-4,028571429	48,40952381	0,96988373	12,01654846	2024	0	-6	
15	DETROIT OFFICE	-5,771428571	64,72380952	0,932165702	11,21052145	2023	11	-2	
16	FORT LAUDERDALE OFFICE	-1,342857143	15,91428571	0,888933602	11,86106383	2023	11	-2	
17	ALEXANDRIA OFFICE	-0,971428571	11,59047619	0,854187192	11,93137255	2023	11	-1	
18	NASHVILLE OFFICE	-0,228571429	10,60952381	0,685714286	26,41666667	2026	10	-8	
19	TAMPA OFFICE					0	0		
20	PHILADELPHIA OFFICE					0	0		
21	MINNEAPOLIS OFFICE					0	0		
22	BELLEVUE OFFICE					0	0		

Image 7.2 : Linear regresions of the pmma decrease by center. Regresion_metrics sheet of the excel file.

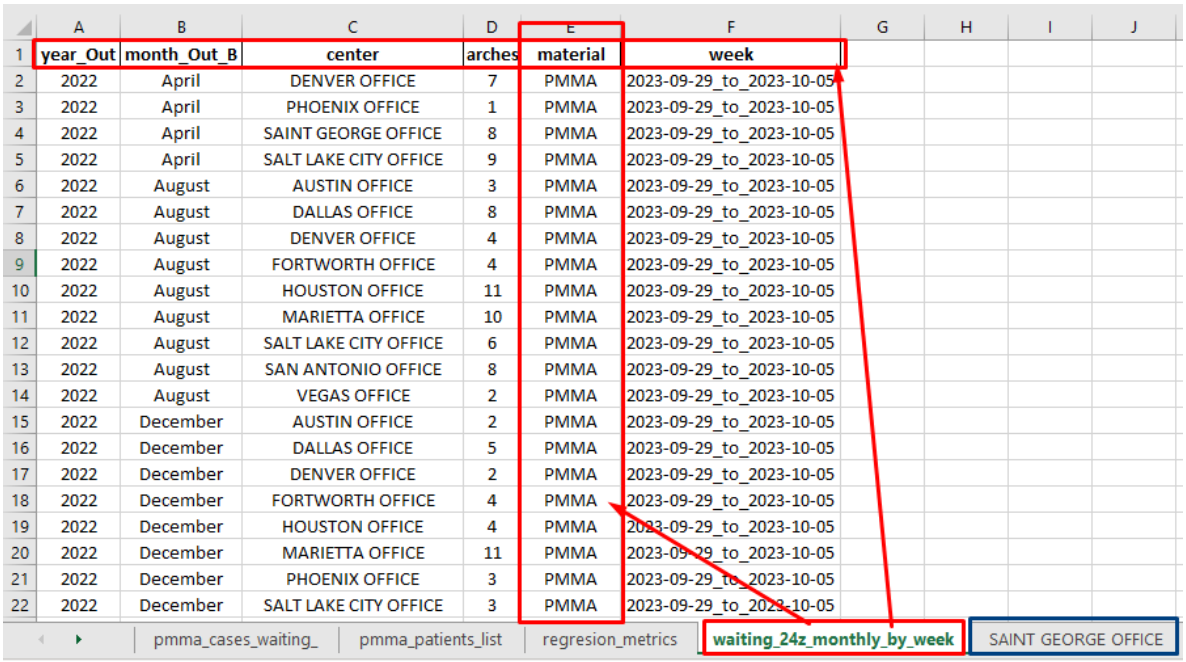
The first group of columns in red boxes are the linear regresion coeficients and r2 values. The meaning of this are describe here :

- **Rate_of_change**: Those are the rate of change on the pmma arches for the selected time interval of the report.
- **Arches at the start of the year**: Those are the intercept of the linear regresions by each center, those are the prediction of this quantity by the lineal model.
- **R2**: This value is a metric of the currency of the model. This could by beetween 0 and 1, the more near to 1, the more the model it´s correct.

For the second group of blue box of columns a extrapolation it´s given on the **x_intercept**. That is, the number of the month when the pmma arches should be finished taking in count the rate of change of each center. The decimal values are converted on the **year** and **month** columns.

Finally in the green box there is a **arches** column with negative values on it. This are the rate ideal rate of change of this pmma arches that the centers should have if the want to finished this type of material change by a selected date. For this example it´s choosed the end of the year 2023.

There are a four sheet named “waiting_24z_monthly_by_week”. Here you can find the quantities



	A	B	C	D	E	F	G	H	I	J
1	year_Out	month_Out_B	center	arches	material	week				
2	2022	April	DENVER OFFICE	7	PMMA	2023-09-29_to_2023-10-05				
3	2022	April	PHOENIX OFFICE	1	PMMA	2023-09-29_to_2023-10-05				
4	2022	April	SAINT GEORGE OFFICE	8	PMMA	2023-09-29_to_2023-10-05				
5	2022	April	SALT LAKE CITY OFFICE	9	PMMA	2023-09-29_to_2023-10-05				
6	2022	August	AUSTIN OFFICE	3	PMMA	2023-09-29_to_2023-10-05				
7	2022	August	DALLAS OFFICE	8	PMMA	2023-09-29_to_2023-10-05				
8	2022	August	DENVER OFFICE	4	PMMA	2023-09-29_to_2023-10-05				
9	2022	August	FORTWORTH OFFICE	4	PMMA	2023-09-29_to_2023-10-05				
10	2022	August	HOUSTON OFFICE	11	PMMA	2023-09-29_to_2023-10-05				
11	2022	August	MARIETTA OFFICE	10	PMMA	2023-09-29_to_2023-10-05				
12	2022	August	SALT LAKE CITY OFFICE	6	PMMA	2023-09-29_to_2023-10-05				
13	2022	August	SAN ANTONIO OFFICE	8	PMMA	2023-09-29_to_2023-10-05				
14	2022	August	VEGAS OFFICE	2	PMMA	2023-09-29_to_2023-10-05				
15	2022	December	AUSTIN OFFICE	2	PMMA	2023-09-29_to_2023-10-05				
16	2022	December	DALLAS OFFICE	5	PMMA	2023-09-29_to_2023-10-05				
17	2022	December	DENVER OFFICE	2	PMMA	2023-09-29_to_2023-10-05				
18	2022	December	FORTWORTH OFFICE	4	PMMA	2023-09-29_to_2023-10-05				
19	2022	December	HOUSTON OFFICE	4	PMMA	2023-09-29_to_2023-10-05				
20	2022	December	MARIETTA OFFICE	11	PMMA	2023-09-29_to_2023-10-05				
21	2022	December	PHOENIX OFFICE	3	PMMA	2023-09-29_to_2023-10-05				
22	2022	December	SALT LAKE CITY OFFICE	3	PMMA	2023-09-29_to_2023-10-05				

Imagen 7.3 : number of arches on pmma and gcam waiting for material change, classified by year, month of delivery, center, material and reported week.

On the other sheets you will find the orders of this PMMA arches by center, for example, on the blue box it´s highlighted ***SAINT GEORGE OFFICE*** there you fill find the columns :

patient	center	archs	date_Out	arch type

Create_caracteristics

This report it was created for the caracterization and classification of the arches on Nuvia´s enterprise. For this propouse different characteristics are created on diferrents columns on the orders information sheet.

From a start, please see for the method to extract the information of the orders on nuvialabs.com/reports from the financial section on the documentation of this app, look for it on the path ***". \documentation\Nuvia app report english.pdf"***

On the excel file that you export you will find a sheet with the named columns seen on the Table 8.0 for each order on the month of you selection:

invoice	patient	restorer	center	archs
checkIn	CheckOut	Due	amount	product
doctor_comment	warranty	warranty_comments	status	

Tabla 8.0 : Exported information extracted from the financial reports on check in and check out sections.

If you want to create different classifications on this orders please update the month of you selection as you could see in the "***Nuvia app report english.pdf"*** document. Then please open the ***nuvia_app_report.bat*** , making doble click to this file an terminal windowns will appear, for this report you will select the number 8 as you can see in the imagen 8.0.

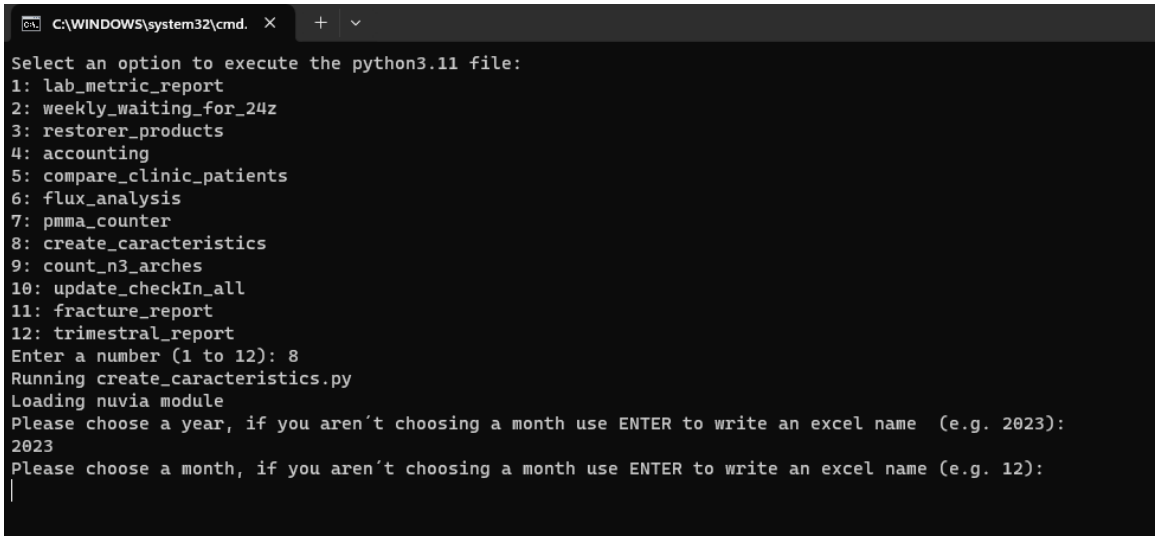


Image 8.0 : Use of the create_caracteristic option on the reports.

There you will see a message that ask you a year and month selection, you have the option to select this values: 2022 , 2023 or 2024 for a year and the 1 to 12 for a month, where 1 is january and 12 is december. Taking as example the year, month equal to 2023, 12 please look for the excel file on the folder with the path (image 8.1) ***".\nuvia_app_reports\data\2023\12"***.

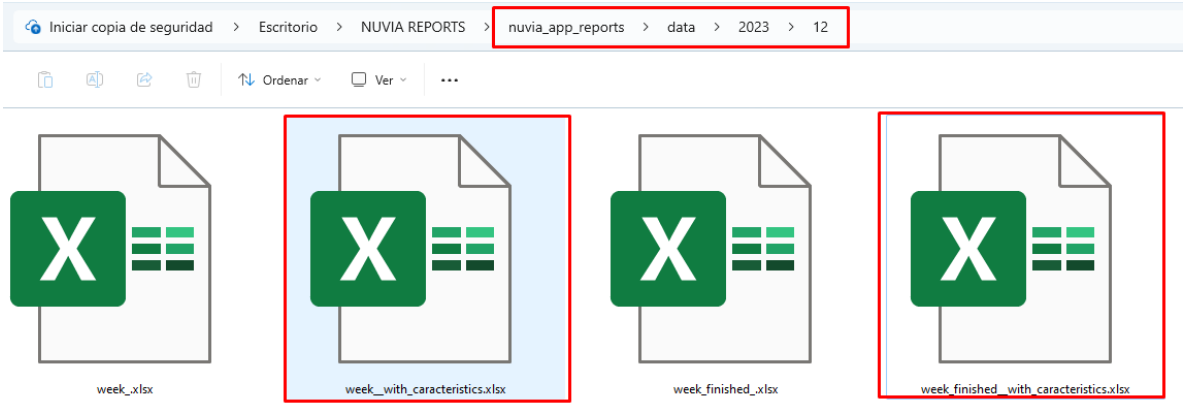


Image 8.2: excel fields on the folder ***data/{year}/{month}.***

As you can see on imagen 8.1 on this folder you will find the ***week_.xlsx*** and ***week_finished_.xlsx*** files, this are the fields exported from nuvia´s platform. The other ones labeled as ***"*_with_caracteristics.xlsx"*** are the fields with the new columns added that are described by groups on the table 8.1 below.

classification	*columns names*
orders information	Invoice , patient, restorer, center, region
creation of the orders information	checkIn, date_In, month_In, time_in, hour_in, month_in_B, year_In
finalization of the orders information	checkOut, date_Out, month_Out, time_out, hour_out, month_Out_B, year_Out
characteristics of the orders	product, archs, amount, status
properties of the products	product_class, material, arch type, redo type
different times of the orders	diff_days, diff_hour, delivery_on_time

Table 8.1 : information of the sheets with caracteristics.

Also there is an option to let the input empty, if you do that please select an excel file path without the extension (.xlsx) to create and export the characteristics from this file, this will be exported on the same folder of the file you are choosen.

Inventory_report

For this report we create a count of the arches of the month by different characteristics, this report it from the 9 selection on ***nuvia_app_report*** as it´s seen on the image 9.0.

```
Enter a number (1 to 11): 9
Running inventory_report.py
Please select the year :2023
For the year 2023, please select the month of the count: 12
Creating the inventory report for the year 2023 and month 12
The report it was created sucefully please look for it on the path : results/inventory_report12.xlsx
Presione una tecla para continuar . . .
```

Image 9.0 : nuvia app report selection 9 interface with the user.

Once you find and open the excel file you will find 6 sheet named arches, redos, arch_type, material, shape with the arches and it´s differents characteristics, the last sheet named orders have the order of the month where the arches are counted. Here on image 9.1 are a short view of this tables format.

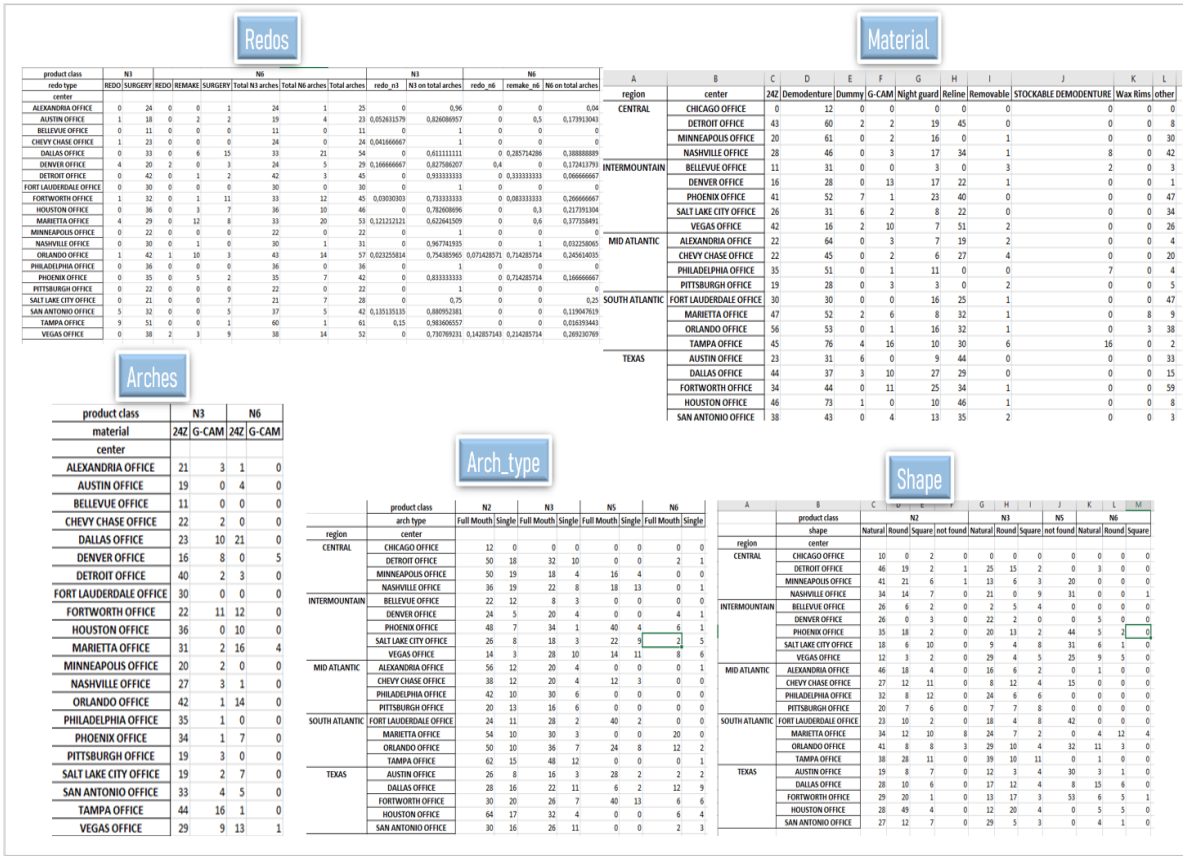


Image 9.1 : short view of the format´s sheet on inventory report.

For the redo report it´s needed to explain how the percents are calculate, as we write below :

- **Totals, Total N3 arches :** (N3, REDO) + (N3, SURGERY)
- **Totals, Total N6 arches :** N6, REDO) + (N6, REMAKE) + (N6, SURGERY)
- **Totals, total arches :** (Totals, Total N3 arches) + (Totals, Total N6 arches)

- **N3, redo_n3 :** (N3, REDO) / (Totals, Totals N3 arches)
- **N3, N3 on total arches:** (Totals, Total N3 arches) / (Totals, Total arches)

- **N6, redo_n6 :** (N6, REDO) / (Totals, Totals N6 arches)
- **N6, remake_n6 :** (N6, REDO) / (Totals, Totals N6 arches)
- **N6, N6 on total arches:** (Totals, Total N6 arches) / (Totals, Total arches)

Update_checkIn_all

On this option you can update the ***nuvia_app_report/data/checkIn_all.xlsx*** file where all the created orders are saved. As you can see on image 10.0, the method ask you for the month of creation of the orders you want to add on this file. This is important for the analysis on N6 products and pmma arches. This must be done each month for correct calculations on the quantities and properties in the nuvia_app_report system. Please take in count that the system need to read all created orders, so it could be a late process.

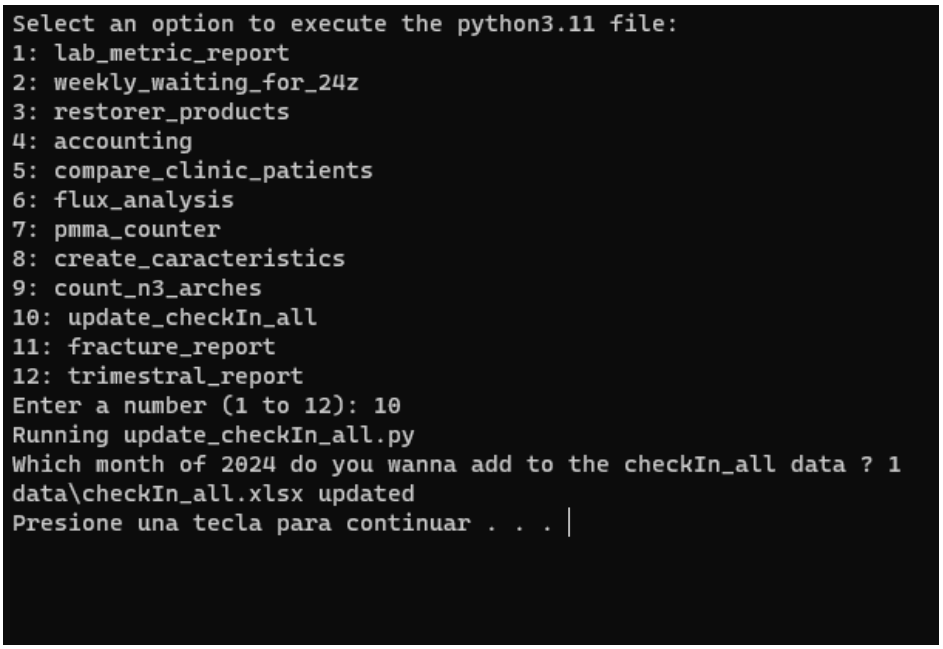


Image 10.0 : Method number 10, update_checkIn_all file.

Fracture_report

A report of the fractured arches detected on Nuvia smiles. On this report you can find the count and description of this fractures. In image 11.0 you will see the diferent sheets that are exported for this report. On the first box, highlighted on red, are the list of orders from the fracture database and platform database.

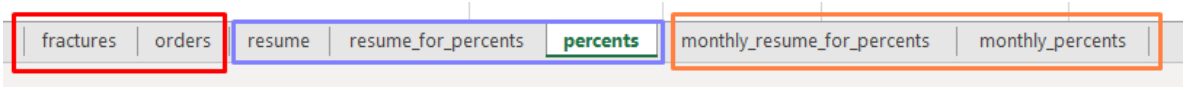


Image 11.0 : sheets on results/data_fracture.xlsx file.

For the second box in the middle, you can find the description of the the fractures by centers, in **“resume”** a general count of this, in **“resume_for_percents”** and **“percents”** you will find this count by center and other characteristics as you can see on image 11.1

A	B	C	D	E	F	G
center	ZK FROM COL OR USA	SIZE	SHADE	ZK BRAND	DETECTED (JUST 3 OPTION)	cases
ALEXANDRIA OFFICE	USA	SINGLE	A1	DENTAL PLUS	LAB PROCESSING	1
ALEXANDRIA OFFICE	USA	SINGLE	BL3	DENTAL PLUS	LAB PROCESSING	1
AUSTIN OFFICE	COL	BW10	BL1	DENTAL PLUS	AFTER DELIVERY	1
AUSTIN OFFICE	COL	BW10	BL3	DENTAL PLUS	AFTER DELIVERY	1
AUSTIN OFFICE	COL	BW5	B1	DENTAL PLUS	AFTER DELIVERY	1

Image 11.1 : resume_for_percents sheet on fracture report file.

On the percents, imagen 11.2, you will get the percent of this cases by each one of this parameters. Also on the third box, you find the same counter of cases by year and months.

	ALEXANDRIA OFFICE	PHOENIX OFFICE	FO
DETECTED (JUST 3 OPTION)_AFTER DELIVERY	0	0,75	
DETECTED (JUST 3 OPTION)_IN THE CLINIC BEFORE DELIVERY	0	0	
DETECTED (JUST 3 OPTION)_LAB PROCESSING	1	0,25	
SHADE_A1	0,5	0,25	
SHADE_A2	0	0	
SHADE_A3	0	0	
SHADE_B1	0	0	
SHADE_BL1	0	0	
SHADE_BL3	0,5	0,25	
SHADE_BI1	0	0	
SHADE_BI3	0	0,25	
SHADE_BI3	0	0,25	
SHADE_C1	0	0	
SIZE_AW5	0	0	
SIZE_B10	0	0	
SIZE_B5	0	0,25	
SIZE_BW10	0	0	
SIZE_BW5	0	0,5	
SIZE_C10	0	0	
SIZE_C5	0	0	
SIZE_CW10	0	0	
SIZE_CW5	0	0	
SIZE_SINGLE	1	0,25	
ZK BRAND_ DENTAL PLUS	0	0	
ZK BRAND_DENTAL PLUS	1	0,75	
ZK BRAND_KEROX	0	0,25	
ZK BRAND_UNKNOW BRAND	0	0	
ZK FROM COL OR USA_COL	0	1	
ZK FROM COL OR USA_USA	1	0	
ZK FROM COL OR USA_Unknow location	0	0	

Imagen 11.2 : percents sheet on the fracture report classifided by center.