

# Using Excel to Troubleshoot EMIS Data



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## Overview

- Basic, Intermediate, and Advanced Excel techniques can be used to analyze EMIS data from Student Information Systems (SISs), from the Data Collector, and on ODE EMIS reports
- This session will demonstrate Excel functions and practical applications that can be helpful in all phases of the EMIS data review process



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## Outline

- Staff and Course Collection Best Practices
- Prepare the CI and CK files for sharing with others in your district
  - Use Conditional Formatting
  - Add data with VLOOKUPS
  - Create a PivotTable
- Review prepared Staff Demographic (CI) and Staff Employment (CK) files
- Access Excel recorded sessions



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## Sharing Staff Data

- Staff data and Course/Student data originate in separate source systems
- The Staff and Course (L) Collection is where the staff, course, and student course assignment data meet
  - When initially running this collection, the results can sometimes be messy
- Sharing staff EMIS data with district staff can be helpful when correcting and verifying the data
- This is not a comprehensive staff and course training but rather some suggestions on using Excel to work through the data



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## Troubleshooting Staff and Course Data

- Data in the SIS and the Staff EMIS system should be updated and current for all LEA types
- Use a systematic approach when working through the Staff and Course Collection
  1. Resolve Level 1 Validations
  2. Resolve Excluded Records
  3. Resolve any remaining Missing Staff
  4. Share the CI and CK files to verify the data to be current, correct, and complete
  5. Review other Submission Files and Level 2 Reports



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# Resolve Level 1 Validations

If you have Level 1 Validations, a link will appear

**Staff and Course Collection - Initial (FY22)**  
 FY22-L-Stf Crs Init: Collection required for all EMIS reporting entities. The initial staff collection includes staff employed any time in FY22 and st...

Submissions: September 23, 2021 - January 28, 2022 (113 days till close)  
 Version: 1  
 Status: The collection was submitted today at 01:25:45 PM by [redacted]  
 Submission Status: Pending Processing (today at 01:25:53 PM)  
 Submission Number: 2 (attempt 1)  
 Actions: [Start Collection](#)  
           [Add New Scheduled Collection](#)  
           [Set Default Collection properties](#)

From ODE: [Level 2 Reports](#)

Prepare Outputs: [Level 1 Validations](#)  
                           [View Submission 2 Data](#)

**Staff and Course Collection - Initial (FY22)**  
 Submission Number 1 (attempt 1)

Validation exceptions are listed by record type and exception severity. To generate the exception report for one record type and/or exception severity click the link in the corresponding row and column.

Last Prepared: September 24, 2021 (14 days ago) at 07:10:46 AM

Record Type	Fatal	Critical	Warning	Info	Total Lvl1Er	Depnd Invalid	Valid Recs
Career-Technical Education Correlated Class Record (CV)	0	0	0	0	0	0	0
Contract Only Staff Record (CC)	0	0	0	0	0	0	0
Contractor Staff Employment Record (CJ)	0	0	0	0	0	0	0
Course Master Record (CM)	0	0	0	0	0	77	811
Mapped Classroom Code Record (CH)	0	0	0	0	0	0	10
Staff Course Record (CU)	0	0	0	0	0	82	853
Staff Demographic Record (CI)	5	0	16	0	21	12	279
Staff Employment Record (CK)	14	0	2	0	16	9	404
Staff Missing Override Record (CP)	0	0	0	0	0	0	0
Staff Summer Employment Separation Record (CL)	0	0	0	0	0	0	0
Student Course Record (GN)	0	0	0	0	0	1842	16175
<b>Total Counts:</b>	<b>19</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>32</b>	<b>2022</b>	<b>18532</b>

[Generate Full Validation Report](#)

**Output Type**  
 The validation exception report can be viewed as an HTML pop-up or downloaded as a CSV file(s). CSV file(s) will download as a single .zip file.

HTML  CSV

Fix Level 1 Validations first because they can cause Excluded Records and Missing Staff



# Resolve Excluded Records and Missing Staff

**Review Types**  
 Detail  
 Missing Data

**Output Options**  
 Zip File:  Download file as a ...  
 File Format:  HTML  CSV  
 Include in CSV files:  Data only  
                                Data and I  
                                Data and J

[Generate Review Data](#)

**Staff and Course Collection - Initial (FY22)**  
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           [Set Default Collection properties](#)

From ODE: [Level 2 Reports](#)

Prepare Outputs: [Level 1 Validations](#)  
                           [View Submission 2 Data](#)

Excluded Records are not included in the data that is reported to ODE

File	Submission 3			Sub 2	
	Valid	Invalid	Total	Valid	Invalid
Career-Technical Education	0	0	0	0	0
Contract Only Staff Record	0	0	0	0	0
Contractor Staff Employme	0	0	0	0	0
Course Master Record (CM).csv	475	3	478	465	
Excluded_Records.csv				1006	
Mapped_Classroom_Code_Record (CM).csv	0	0	0	0	0
Staff Course Record (CU).csv	475	3	478	465	
Staff Demographic Record (CI).csv	234	11	245	234	
Staff Employment Record (CK).csv	308	12	320	308	
Staff Missing Override Record (CP).csv	0	0	0	0	0
Staff Missing_Report.csv				144	
Staff Summer Employment Separation Record (CL).csv	0	0	0	0	0
Student Course Record (GN).csv	9256	3	9259	9096	
<b>Total counts:</b>	<b>10748</b>	<b>32</b>	<b>20930</b>		

Staff Missing includes those reported in a prior collection without a separation date and who are currently not being reported



## Submission Files, cont'd

File	Submission 5			Sub 4	
	Valid	Invalid	Total	Valid	Invalid
Career-Technical Education Correlated Class Record (CV).csv	0	0	0	0	0
Contract Only Staff Record (CC).csv					
Contractor Staff Employment Record (C).csv					
Course Master Record (CN).csv					
Excluded Records.csv			5		
Mapped Classroom Code Record (CM).csv	0	0	0	0	0
Staff Course Record (CU).csv	367	6	373	363	
Staff Demographic Record (CI).csv	109	0	109	106	
Staff Employment Record (CK).csv	158	0	158	153	
Staff Missing Override Record (CP).csv	0	0	0	0	
Staff Missing Report.csv			0		
Staff Summer Employment Separation Record (CL).csv	0	0	0	0	
Student Course Record (GN).csv	5200	0	5200	5148	
<b>Total counts:</b>	<b>6207</b>	<b>6</b>	<b>6218</b>		

Start by opening the Staff Employment (CK) file, we will open the Staff Demographic (CI) later

We are going to demonstrate some Excel functions  
Using the CI and CK files but all files should be reviewed



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### Quick Check

The Staff and Course Collection includes data from two separate source systems and involves more district staff to review the data. It is best to work through errors, excluded records, and missing staff before attempting to review the remaining submission files.

- Have you processed a staff and course collection with current data?
- Have you cleaned up your Level 1 Validations?
- Have you resolved your Excluded Records and Missing Staff?



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# Preparing the Staff Employment (CK) File



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## Files to Open

- Staff Employment Record (CK)
- Your ITC will provide you with two additional files-
  - Position Codes as of 10\_12\_2021
  - Assignment Areas as of 10\_12\_2021

	A	B
1	101	101 - Administrative Assistant Assignment
2	103	103 - Assistant, Deputy/Associate Superintendent Assignment
3	104	104 - Assistant Principal Assignment
4	108	108 - Principal Assignment
5	109	109 - Superintendent Assignment
6	110	110 - Supervisor/Manager Assignment
7	112	112 - Treasurer Assignment
8	113	113 - Coordinator Assignment

	A	B	C
1	0	No Assignment Area	
2	999050	999050 - Art Education K-8	
3	999140	999140 - Title I Programs	
4	999270	999270 - Preschool General Education	
5	999350	999350 - Food Services	
6	999365	999365 - EL Instruction Program	
7	999370	999370 - General Education K-12	
8	999380	999380 - Gifted and Talented	



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# Prepare the CK file

	A	B	C	D	E	F	G	H
1	Fiscal Year	Reporting	District IRN	Employee ID	Employee Name	State Staff	Position Code	
2	2022	L	444444	OH244408	LAST, FIRST	OH244408	230	C
3	2022	L	444444	OH244408	LAST, FIRST	OH244408	230	C
4	2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
5	2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
6	2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
7	2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
8	2022	L	444444	OH246806	LAST, FIRST	OH246806	204	C
9	2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C

With the Staff Employment (CK) file open, see that the values in the Position Code column appear as ="230" which will prevent the VLOOKUP from working

In the next series of slides we will reformat this column



# Copy and Paste

	A	B	C	D	E	F	G	H
7	2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
8	2022	L	444444	OH246806	LAST, FIRST	OH246806	204	C
9	2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
10	2022	L	444444	ZD060222	LAST, FIRST	ZD060222	230	C
11	2022	L	444444	OS204448	LAST, FIRST	OS204448	230	C
12	2022	L	444444	OS204448	LAST, FIRST	OS204448	899	C
13	2022	L	444444	OS204448	LAST, FIRST	OS204448	415	C
14	2022	L	444444	OH248246	LAST, FIRST	OH248246	230	C
15	2022	L	444444	ZD060226	LAST, FIRST	ZD060226	802	C

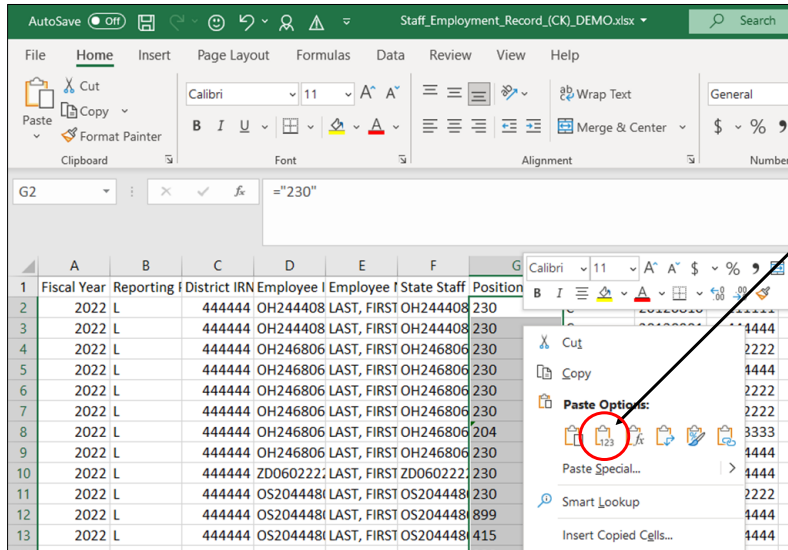
1. Select the data in the Position Code column without selecting the Header. Tip- Place cursor in cell G2, hold down the Shift and Control keys and press the down arrow

2. With the data selected, right click and then select "Copy"





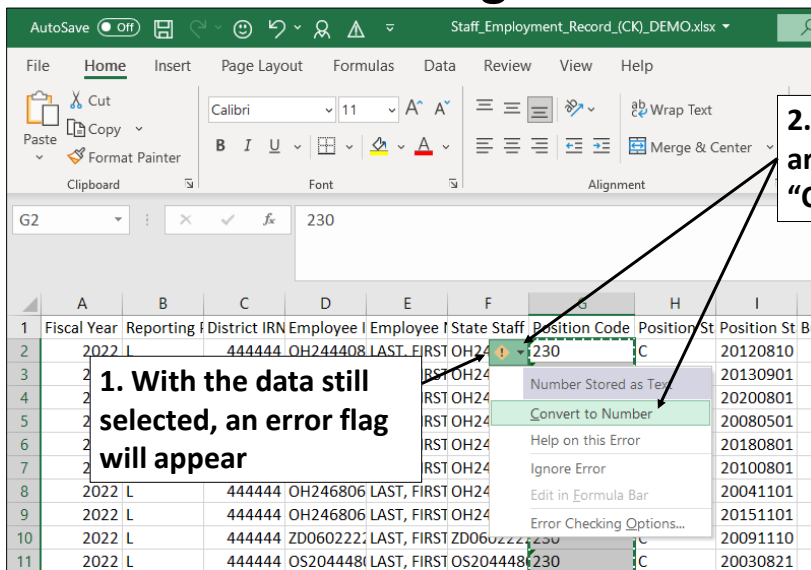
# Copy and Paste, cont'd



Right click again and select the "paste values" icon



# Resolve the Error Flag



1. With the data still selected, an error flag will appear

2. Click the down arrow and select "Convert to Number"

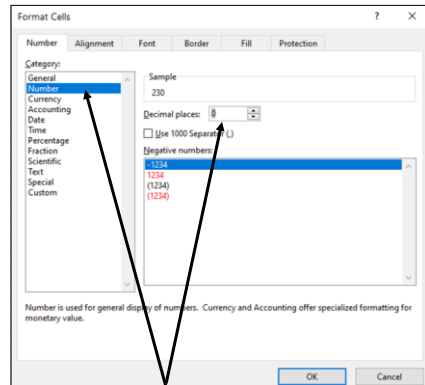
3. This will shift the numbers in the column to the right





# Format Cells

1. One last time, right click while the data is still selected and choose "Format Cells"



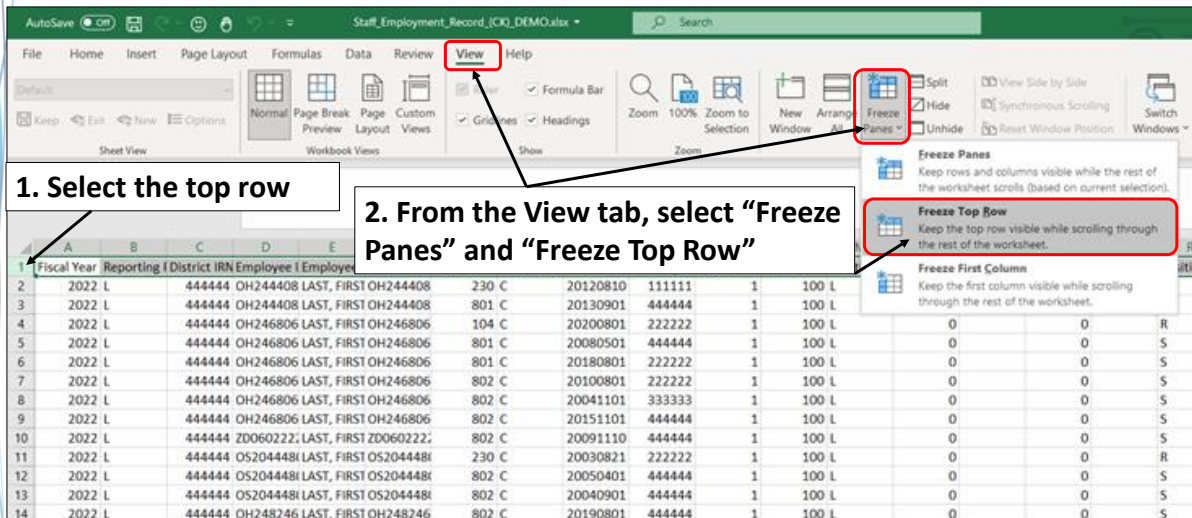
2. In the Format Cells prompt, select "Number," then set the "Decimal places" to "0", then click "OK"



# Freeze Top Row

1. Select the top row

2. From the View tab, select "Freeze Panes" and "Freeze Top Row"



# Wrap Text in Top Row

From the Home Tab, select "Wrap Text"

1	Fiscal Year	Reporting Period	District IRN	Employee ID	Employee Name	State Staff ID	Position Code	Position Status	Position Start Date	Building IRN	Position FTE	Funds Source Percent 1	Position Fund Source 1	Funds Source Percent 2	Position Fund Source 2
2	2022	L	444444	OH244408	LAST, FIRST	OH244408	230	C	20120810	111111	1	100	L	0	0
3	2022	L	444444	OH244408	LAST, FIRST	OH244408	801	C	20130901	444444	1	100	L	0	0
4	2022	L	444444	OH246806	LAST, FIRST	OH246806	104	C	20200801	222222	1	100	L	0	0
5	2022	L	444444	OH246806	LAST, FIRST	OH246806	801	C	20080501	444444	1	100	L	0	0
6	2022	L	444444	OH246806	LAST, FIRST	OH246806	801	C	20180801	222222	1	100	L	0	0
7	2022	L	444444	OH246806	LAST, FIRST	OH246806	802	C	20100801	222222	1	100	L	0	0
8	2022	L	444444	OH246806	LAST, FIRST	OH246806	802	C	20041101	333333	1	100	L	0	0
9	2022	L	444444	OH246806	LAST, FIRST	OH246806	802	C	20151101	444444	1	100	L	0	0
10	2022	L	444444	ZD060222	LAST, FIRST	ZD060222	802	C	20091110	444444	1	100	L	0	0
11	2022	L	444444	OS204448	LAST, FIRST	OS204448	230	C	20030821	222222	1	100	L	0	0
12	2022	L	444444	OS204448	LAST, FIRST	OS204448	802	C	20050401	444444	1	100	L	0	0



# Add Filters

From the Home tab, select "Sort & Filter" and then "Filter"

1	Fiscal Year	Reporting Period	District IRN	Employee ID	Employee Name	State Staff ID	Position Code	Position Status	Position Start Date	Building IRN	Position FTE	Source 1	Source 2	Source 3	Position Type	Position App	Work Day	Days	
2	2022	L	444444	OH244408	LAST, FIRST, MIDDLE	OH244408	230	C	20120810	111111	1	100	L	0	0	R	1	7.5	184
3	2022	L	444444	OH244408	LAST, FIRST, MIDDLE	OH244408	801	C	20130901	444444	1	100	L	0	0	S	1	3	0
4	2022	L	444444	OH246806	LAST, FIRST, MIDDLE	OH246806	104	C	20200801	222222	1	100	L	0	0	R	1	7.5	214
5	2022	L	444444	OH246806	LAST, FIRST, MIDDLE	OH246806	801	C	20080501	444444	1	100	L	0	0	S	1	1	10



# Sort the File

**2. From the Data Tab select Sort**

**3. In the Sort Prompt, sort by Employee Name and click OK (in this demonstration we will use State Staff ID since names were removed from the DEMO file)**

**1. Select all of the data in the spreadsheet by clicking between the A and 1, or use CTRL A**

Fiscal Year	Reporting District	IRN	Employee ID	Employee Name	State Staff ID	Position Code	Position State
2022	L	444444	OH244408	LAST, FIRST	OH244408	230	C
2022	L	444444	OH244408	LAST, FIRST	OH244408	230	C
2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
2022	L	444444	OH246806	LAST, FIRST	OH246806	230	C
2022	L	444444	OH228668	LAST, FIRST	OH228668	899	C
2022	L	444444	OH444484	LAST, FIRST	OH444484	415	C
2022	L	444444	OH422644	LAST, FIRST	OH422644	230	C
2022	L	444444	OH240464	LAST, FIRST	OH240464	326	C



# Conditional Formatting

**2. From the Home tab select Conditional Formatting**

**3. Select "Highlight Cell Rules, then "Duplicate Values"**

**1. Select a column to highlight duplicates. We selected State Staff ID, but you should select "Employee Name"**

Fiscal Year	Reporting District	IRN	Employee ID	Employee Name	State Staff ID	Position Code	Building	Position State
2022	L	444444	OH244408	LAST, FIRST, MIDDLE	OH244408	801	C	20180801
2022	L	444444	OH244408	LAST, FIRST, MIDDLE	OH244408	801	C	20180801
2022	L	444444	OH246806	LAST, FIRST, MIDDLE	OH246806	802	C	20100801
2022	L	444444	OH246806	LAST, FIRST, MIDDLE	OH246806	802	C	20041101
2022	L	444444	OH246806	LAST, FIRST, MIDDLE	OH246806	802	C	20100801
2022	L	444444	OH246806	LAST, FIRST, MIDDLE	OH246806	802	C	20151101
2022	L	444444	OH246806	LAST, FIRST, MIDDLE	OH246806	802	C	20011101



# Conditional Formatting cont'd

Click "OK", then see that any staff member with more than one job record is highlighted

Since you used "Employee Name", highlighted records will appear in Column E instead

Fiscal Year	Reporting Period	District IRN	Employee ID	Employee Name	State Staff ID	Position Code	Position Status
2022	L	444444	OH2444084	LAST, FIRST, MIDDLE	OH2444084	230	C
2022	L	444444	OH2444084	LAST, FIRST, MIDDLE	OH2444084	801	C
2022	L	444444	OH2468064	LAST, FIRST, MIDDLE	OH2468064	104	C
2022	L	444444	OH2468064	LAST, FIRST, MIDDLE	OH2468064	801	C
						801	C
						802	C



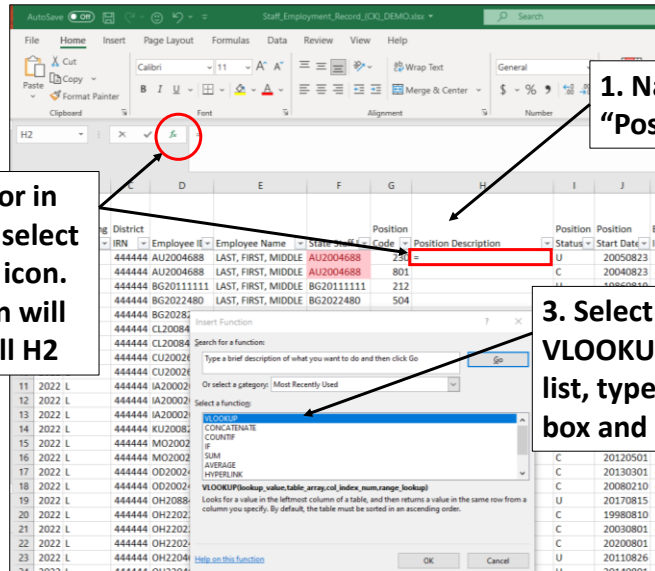
# Add Column for VLOOKUP

Right click on column H then Select "Insert" to add a column

Fiscal Year	Reporting Period	District IRN	Employee ID	Employee Name	State Staff ID	Position Code	Position Status
2022	L	444444	AU2004688	LAST, FIRST, MIDDLE	AU2004688	230	U
						801	C
						212	U
						504	C
						230	C
						230	C
						801	C
						230	C
						802	C
						203	C
						801	C
						801	C
						109	U
						230	U



# Name the Column and Select VLOOKUP



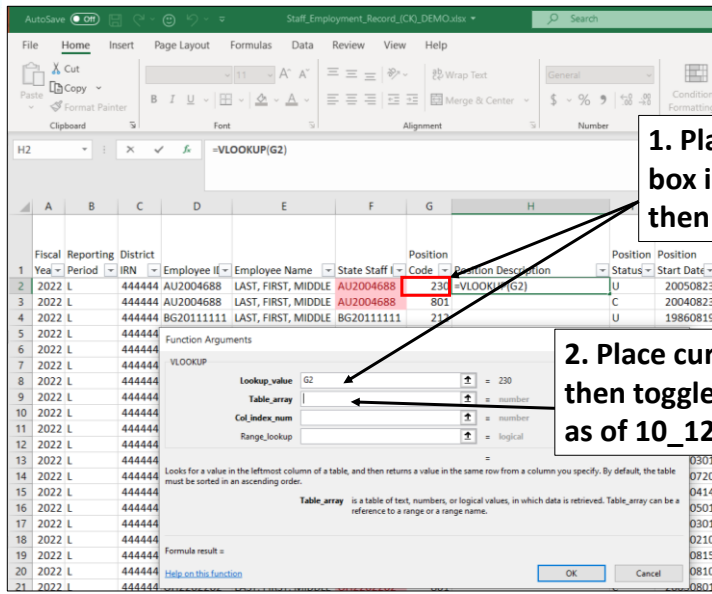
1. Name the new column "Position Description"

2. Place cursor in Cell H2 then select the function icon. An equal sign will appear in Cell H2

3. Select VLOOKUP then OK. If VLOOKUP doesn't appear in the list, type it in the search box and hit "Go"



# Begin the VLOOKUP



1. Place cursor in the Lookup value box in the Function Arguments prompt, then click in cell G2

2. Place cursor in the Table array Box then toggle to the "Position Codes as of 10\_12\_2021.xlsx" Spreadsheet





# Complete the VLOOKUP Prompt

**1. Select Cell A1 and then select all populated cells. This will populate the Table Array Box**

**2. Enter the number 2 in the Col Index Num Box, since you want data from the second column**

**3. Type FALSE in the Range Lookup Box and click OK**

Function Arguments  
VLOOKUP

Lookup\_value: G2 = 230  
 Table\_array: '12\_2021.xlsx'!\$A\$1:\$B\$83  
 Col\_index\_num: 2  
 Range\_lookup: FALSE

Formula result = 230 - Teacher Assignment



# VLOOKUP Brings Back Position Descriptions

Cell H2 contains the first matching value. Drag or double click the bottom right corner of cell H2 to populate the values down

Formula in H2: `=VLOOKUP(G2,['Position Codes as of 10_12_2021.xlsx']!$A$1:$B$83,2,FALSE)`

Year	Reporting Period	District	Employee ID	Employee Name	State Staff Code	Position Code	Position Description	Position Status	Position Start Date
2022	L	444444	AU2004688	LAST, FIRST, MIDDLE	AU2004688	230	230 - Teacher Assignment	C	20050823
2022	L	444444	AU2004688	LAST, FIRST, MIDDLE	AU2004688	801	801 - Advisor Assignment	C	20040823
2022	L	444444	BG201111111	LAST, FIRST, MIDDLE	BG201111111	212	212 - Supplemental Service Teac	U	19860819
2022	L	444444	BG2022480	LAST, FIRST, MIDDLE	BG2022480	504	504 - Records Managing Assignm	C	20140730
2022	L	444444	BG2028224	LAST, FIRST, MIDDLE	BG2028224	230	230 - Teacher Assignment	C	20110826
2022	L	444444	CL2008426	LAST, FIRST, MIDDLE	CL2008426	230	230 - Teacher Assignment	C	20070817
2022	L	444444	CL2008426	LAST, FIRST, MIDDLE	CL2008426	801	801 - Advisor Assignment	C	20100901
2022	L	444444	CU2002668	LAST, FIRST, MIDDLE	CU2002668	230	230 - Teacher Assignment	C	20010629
2022	L	444444	CU2002668	LAST, FIRST, MIDDLE	CU2002668	802		C	20041101
2022	L	444444	IA2000202	LAST, FIRST, MIDDLE	IA2000202	203		C	19970822
2022	L	444444	IA2000202	LAST, FIRST, MIDDLE	IA2000202	801		C	20040823
2022	L	444444	IA2000202	LAST, FIRST, MIDDLE	IA2000202	801		C	20090301
2022	L	444444	KU2008244	LAST, FIRST, MIDDLE	KU2008244	109		U	20140720
2022	L	444444	MO2002644	LAST, FIRST, MIDDLE	MO2002644	230		U	20140414



## Copy and Paste Values

AutoSave (OFF) Staff\_Employment\_Record\_(CK)\_DEMO.xlsx

File Home Insert Page Layout Formulas Data Review View Help

Clipboard Font Alignment Number

Position Description

District	IRN	Employee ID	Employee Name	State Staff Code	Position Code	Position Description
444444	OH4040606	LAST, FIRST, MIDDLE	OH4040606	801	801	Advisor Assignment
444444	OH4044200	LAST, FIRST, MIDDLE	OH4044200	230	230	Teacher Assignment
444444	OH4044200	LAST, FIRST, MIDDLE	OH4044200	801	801	Advisor Assignment
444444	OH4044200	LAST, FIRST, MIDDLE	OH4044200	801	801	Advisor Assignment
444444	OH4044200	LAST, FIRST, MIDDLE	OH4044200	801	801	Advisor Assignment
444444	OH4044200	LAST, FIRST, MIDDLE	OH4044200	801	801	Advisor Assignment
444444	OH4048444	LAST, FIRST, MIDDLE	OH4048444	108	108	Principal Assignment
444444	OH4080024	LAST, FIRST, MIDDLE	OH4080024	202	202	Counseling Assignment
444444	OH4080680	LAST, FIRST, MIDDLE	OH4080680	230	230	Teacher Assignment
444444	OH4080680	LAST, FIRST, MIDDLE	OH4080680	801	801	Advisor Assignment
444444	OH4080680	LAST, FIRST, MIDDLE	OH4080680	212	212	Supplemental Service
444444	OH4084640	LAST, FIRST, MIDDLE	OH4084640	802	802	Coaching Assignment
444444	OH4086800	LAST, FIRST, MIDDLE	OH4086800	505	505	Teaching Aide Assign
444444	OH4200000	LAST, FIRST, MIDDLE	OH4200000	230	230	Teacher Assignment
444444	OH4202028	LAST, FIRST, MIDDLE	OH4202028	230	230	Teacher Assignment
444444	OH4204464	LAST, FIRST, MIDDLE	OH4204464	230	230	Teacher Assignment
444444	OH4206280	LAST, FIRST, MIDDLE	OH4206280	230	230	Teacher Assignment

Clipboard icon with "123"

To "disconnect" the data in Column H from the position codes spreadsheet, select Column H, then right click and "Copy", then right click again, and paste values (Clipboard icon with "123")



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## Repeat the VLOOKUP

- Add a column next to the "Assignment Area" column
- Add a title "Assignment Description"
- Place cursor in cell AA2
- Click on the Insert Function link (fx) and select VLOOKUP
  - Lookup value – click in cell Z2
  - Table array is data in Assignment Areas as of 10\_12\_2021.xlsx
  - Col Index Number is 2
  - Range Lookup is FALSE
- Copy values down, then copy and paste values



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## Justify Columns

Click on the triangle between Column A and Row 1 to select the entire spreadsheet

Place cursor between any two column headers and double click

Fiscal Year	Reporting Period	District IRN	Employee ID	Employee Name	State Staff ID	Position Code	Position Status	Position Start Date	Building IRN	Position FTE
2022	L	444444	OH2444084	LAST, FIRST, MIDDLE	OH2444084	230	C	20120810	111111	1
2022	L	444444	OH2444084	LAST, FIRST, MIDDLE	OH2444084	801	C	20130901	444444	1
2022	L	444444	OH2468064	LAST, FIRST, MIDDLE	OH2468064	104	C	20200801	222222	1
2022	L	444444	OH2468064	LAST, FIRST, MIDDLE	OH2468064	801	C	20080501	444444	1
2022	L	444444	OH2468064	LAST, FIRST, MIDDLE	OH2468064	801	C	20180801	222222	1
2022	L	444444	OH2468064	LAST, FIRST, MIDDLE	OH2468064	802	C	20100801	222222	1
2022	L	444444	OH2468064	LAST, FIRST, MIDDLE	OH2468064	802	C	20041101	333333	1



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## Quick Check

When seeking feedback from others in your district, it is best to format the data to be more user-friendly. Simple Excel functions like VLOOKUP can add additional definitions to columns of data that may be difficult to translate.

- Are you able to prepare the file with sorting and conditional formatting?
- Were you able to successfully complete VLOOKUPS on the file?
- Did you save the position code and assignment area code files for the next time you will prepare the CK file for review?



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# Reviewing the Prepared CI and CK



## Prepare the Staff Demographic (CI) File

- Prepare your Staff Demographic (CI) file
- Next, we will discuss ways to dig deeper into staff data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
	Fiscal Year	Reporting Period	District	IRN	Employee ID	Prefix	First Name	Middle Name	Last Name	Suffix	Date of Birth	Racial/Ethnic Group	Gender	Education Level	Semester Hours	Early Childhood Education	Authorized Teaching Experience	Total Years in Education	Principal Experience	Record is Valid	
2	2022	L	444444	OH2444084			FIRST NAME		LAST NAME		OH2444084	19790410	W	F	2	150	*	17	17	0	Yes
3	2022	L	444444	OH2468064			FIRST NAME		LAST NAME		OH2468064	19810916	W	M	3	221	*	16	16	1	Yes
4	2022	L	444444	ZD0602222			FIRST NAME		LAST NAME		ZD0602222	19700815	W	M	0	0	*	0	0	0	Yes
5	2022	L	444444	OS2044480			FIRST NAME		LAST NAME		OS2044480	19590412	W	F	3	211	*	20	20	0	Yes
6	2022	L	444444	OH2482464			FIRST NAME		LAST NAME		OH2482464	19781124	W	M	2	136	*	0	0	0	Yes
7	2022	L	444444	ZD0602266			FIRST NAME		LAST NAME		ZD0602266	19640914	W	F	0	0	*	0	0	0	Yes
8	2022	L	444444	OH2286688			FIRST NAME		LAST NAME		OH2286688	19781227	W	M	0	0	*	0	0	0	Yes
9	2022	L	444444	OH4444842			FIRST NAME		LAST NAME		OH4444842	19770615	N	F	0	0	*	0	0	0	Yes
10	2022	L	444444	OH4226444			FIRST NAME		LAST NAME		OH4226444	19930221	B	F	0	0	*	0	0	0	Yes
11	2022	L	444444	OH2404648			FIRST NAME		LAST NAME		OH2404648	19770112	W	M	0	0	*	0	0	0	Yes

Refer to EMIS Manual section 3.3 Staff Demographic Record (CI) and other related sections



# Staff Demographic (CI) Records

Analyze the data -

- One per staff member
- All data should be correct, current, and complete
- Pay close attention to the accuracy of -
  - Education Level
  - Early Childhood Education Qualification
  - Authorized Teaching Experience Years
  - Total Experience Years in Education
  - Principal Experience Years in Education
- All records and elements should be verified
- Share this data with data owners in your LEA
- **Remove Employee IDs if they contain Social Security Numbers before sending this to anyone for review (can leave column and header just remove values)**



# Prepared Staff Employment (CK) File

These screenshots are from the prepared Staff Employment (CK) file

Fiscal Year	Reporting Period	District	Employee ID	Employee Name	State Staff Code	Position Code	Position Description	Position Status	Start Date	Building	Position FTE	Funds Source	Position Fund	Funds Source	Position Fund	Funds Source	Position Fund	Funds Source
2022	L	444444	AU2004688	LAST, FIRST, MIDDLE	AU2004688	230	230 - Teacher Assignment	U	20050823	222222	0.5	100	L		0		0	
2022	L	444444	AU2004688	LAST, FIRST, MIDDLE	AU2004688	801	801 - Advisor Assignment	C	20040823	444444	1	100	L		0		0	
2022	L	444444	BG20111111	LAST, FIRST, MIDDLE	BG20111111	212	212 - Supplemental Service Teaching Assignment	U	19860819	111111	1	100	L		0		0	
2022	L	444444	BG2022480	LAST, FIRST, MIDDLE	BG2022480	504	504 - Records Managing Assignment	C	20140730	444444	0.5	100	L		0		0	
2022	L	444444	BG2028224	LAST, FIRST, MIDDLE	BG2028224	230	230 - Teacher Assignment	C	20110826	222222	1	100	L		0		0	
2022	L	444444	CL2008426	LAST, FIRST, MIDDLE	CL2008426	230	230 - Teacher Assignment	C	20070817	333333	1	100	L		0		0	

Position Type	Appointm ent	Length of Work	Scheduled Days	Pay Ty	Pay Rate	Extended Service	Assignme nt Area	Assignment Description	Position Separatio n	Local Reasc	Contract Code	Grade Level Assigned	Grade Level Assigned	Qualified Paraprofe ssional	Position Separation Date	Special Education FTE	Record Is Valid
T	1	3.75	O H		43.81	0	999370	999370 - General Education		1	1	**	**	*	7/2/2015		0 Yes
S	1	1	O A		3652	0		0 No Assignment Area	*		3	**	**	*			0 Yes
R	1	7.5	A		184	82581	0	999414 999414 - Special Education K		1	1	KG	4	*	5/31/2020		1 Yes
R	2	4	H		260	29.23	0	0 No Assignment Area	*		1	**	**	*			0 Yes
								Education	*		1		9	12	*		0 Yes
								Education	*		1	**	**	*			0 Yes

Refer to EMIS Manual section 3.4 Staff Employment Record (CK) and other related sections



## Review the Staff Employment (CK) Records

Analyze the data –

- At least one per staff member
- All data should be correct, current, and complete
- Pay close attention to
  - Position Codes and Assignment Areas
  - Position FTEs and Special Education FTEs
  - Pay Rate/Amount (Salaries)
  - Staff with multiple job records
    - Are Building IRNs, Position FTEs, and Salaries reported correctly?
    - Watch for duplicate records



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## Review the Staff Employment (CK) Records, cont'd

- Filter and highlight records with separation dates
  - Are these records for current, reportable separations?
  - Are there staff who separated that are not being reported appropriately?
- All records and elements should be verified
- Share this data with data owners in your LEA
  - Remove Employee IDs if they contain Social Security Numbers before sending this to anyone for review (can leave column and header just remove values)



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## Quick Check

Staff EMIS data must be reviewed for accuracy and completeness. Staff EMIS data is used for Local Report Card data and for teacher certification purposes. It is important to verify this data with data owners within the LEA.

- Have you prepared your files for sharing and removed SSNs as applicable?
- Have you included instructions to help understand the data in the report?
- Have you identified the data owners in your school that can verify and update the data as needed?



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## Create a PivotTable



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## Super Simple PivotTable for CK Records

- Open the Prepared Staff Employment (CK) File
- We are going to create a PivotTable that contains
  - Position Code Descriptions
  - Separated by Building and District IRNs
  - Summed by Position FTE
  - Filter on Position Status



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## Create a PivotTable

Select all data, then from the Insert Tab, select PivotTable

Leave the Create PivotTable prompt as defaulted and click "OK"

1	Year	Period	IRN	Employee	Employee Name	State Staff	Code	Position Description
2	2022	L	444444	AU200468				ment
3	2022	L	444444	AU200468				ment
4	2022	L	444444	BG201111				Service
5	2022	L	444444	BG202248				ing As
6	2022	L	444444	BG202822				ment
7	2022	L	444444	CL200842				ment
8	2022	L	444444	CL200842				ment
9	2022	L	444444	CU200266				ment
10	2022	L	444444	CU200266				ment
11	2022	L	444444	IA2000202				la Assignment
12	2022	L	444444	IA2000202				ment
13	2022	L	444444	IA2000202				ment
14	2022	L	444444	KU200824				nt Assignment
15	2022	L	444444	MO200266				ment
16	2022	L	444444	MO200266				ment
17	2022	L	444444	OD200246				gnment
18	2022	L	444444	OD200246				gnment



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# Choose PivotTable Fields

**In the PivotTable Fields box move**

- 1. Position Status in the Filters Box**
- 2. Position Description to the Rows Box**
- 3. Building IRN to the Columns Box**
- 4. Position FTE to the Values Box (be sure it says "Sum of")**



# CK Record PivotTable

**Select the data in the PivotTable, then from the Home Tab select the Borders icon and the "All Borders"**





# Position Status Filter

Position Status	Middle	High School	District	Grand Total
Sum of Position FTE				
104 - Assistant Principal Assignment	2			2
108 - Principal Assignment	9	1		10
109 - Superintendent Assignment			2	2
110 - Supervisor/Manager Assignment			2	2
112 - Treasurer Assignment			2	2
113 - Coordinator Assignment	1	0.33		1.33
114 - Education Administrative Specialist Assignment			1	1
202 - Counseling Assignment	1	2		3
203 - Librarian/Media Assignment	1			1
204 - Remedial Specialist Assignment				
212 - Supplemental Service Teaching Assignment (Serves Students with Disability Conditions Only)	2			2
230 - Teacher Assignment			36.02	36.02
299 - Other Professional - Educational Assignment				
320 - Registered Nursing Assignment	1			1
402 - Computer Operating Assignment				
414 - Library Aide Assignment				
501 - Bookkeeping Assignment				
502 - Clerical Assignment	1	5		6
504 - Records Managing Assignment				
505 - Teaching Aide Assignment	10	1		11
802 - Coaching Assignment	1	14		15
899 - Other Extra/Intra - Curricular Activities Assignment			1	1
902 - Custodian Assignment	4	7	4	15
904 - Food Service Assignment	4.75	1.75	5.25	11.75
905 - Guard/Watchman Assignment			1	1
906 - Monitoring Assignment		2.5	0.4	2.9
Grand Total	68.78	96.27	57.65	208.9

1. From the dropdown select appropriate Position Statuses to include (check "Select Multiple Items" to make individual selections), then click "OK"

**Position Status Element Options**  
**C** - Current position in the district  
**A** - Contracted personnel - Agency  
**I** - Contracted personnel - Individual  
**P** - Leave of absence  
**U** - No longer employed by district in this position

In most instances it would be best to not include "P" and "U" in the filter



# CK Record PivotTable

Position Status	Elementary	Middle	High School	District	Grand Total
Sum of Position FTE					
104 - Assistant Principal Assignment		1			1
108 - Principal Assignment		1	3	1	5
109 - Superintendent Assignment				1	1
112 - Treasurer Assignment				1	1
113 - Coordinator Assignment		1			1
114 - Education Administrative Specialist Assignment				1	1
202 - Counseling Assignment		1	1	1	3
203 - Librarian/Media Assignment		2	1		3
204 - Remedial Specialist Assignment		3	1		4
212 - Supplemental Service Teaching Assignment (Serves Students with Disability Conditions Only)		4	1	4	9
230 - Teacher Assignment		25	24.02	19.07	68.09
299 - Other Professional - Educational Assignment		1			1
320 - Registered Nursing Assignment		2	1	1	4
402 - Computer Operating Assignment				1	1
414 - Library Aide Assignment			1		1
501 - Bookkeeping Assignment				3	3
502 - Clerical Assignment		3	1	2	6
504 - Records Managing Assignment				0.5	0.5
505 - Teaching Aide Assignment		4	1		5
603 - General Maintenance Assignment				5	5
605 - Mechanic Assignment				1	1
611 - Foreman Assignment				4	4
702 - Dispatching Assignment				1	1
704 - Vehicle Operating (Bus) Assignment				10	10
801 - Advisor Assignment		1	13	4	18
802 - Coaching Assignment			17	11	28
899 - Other Extra/Intra - Curricular Activities Assignment				1	1
902 - Custodian Assignment	2	4	4		10
904 - Food Service Assignment	4.75	1.5	5.25		11.5
Grand Total	50.75	72.52	53.32	187.5	364.09

Drill down to staff level data by clicking specific values

Use this PivotTable as a high-level view of current staff by Position Code and Position FTE by building



## Quick Check

PivotTables are an effective tool to summarize and use in the data review process. Data can easily be drilled down to staff level data. Administrators often appreciate high level summary data such as the PivotTable we just created.

- Did you successfully create a simple PivotTable?
- Are you able to drill down to staff level data?
- Who in your district might like to see a summary of staff data?



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## Accessing Recorded Excel Sessions



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# EMIS Alliance Public Space

This website contains ODE ITC Conference Call notes, EMIS Alliance Instructional Videos, and a calendar of upcoming EMIS Alliance Trainings

community.mcoecn.org/display/EM/EMIS+Alliance+Public+Space

Management Council Community Spaces Forums

Public EMIS Alliance

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Pages

## EMIS Alliance Public Space

Created by Ryan McClay, last modified by Andrew Tompkins on Jun 05, 2020

### Welcome to the EMIS Alliance Community

EMIS Alliance is a project collaboration between the Ohio Department of Education, the Management Council, and the Information Technology Centers.

The project goal is to improve the capacity to provide quality data by implementing a shared training program available to all Ohio districts and schools.

Search this documentation

Featured Pages

- FY19 EMIS Alliance Instructional Video Resources
- FY21 ODE EMIS Conference Calls
- FY22 ODE EMIS Conference Calls
- ODE EMIS Conference Calls



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## FY21 Excel Video

- Enrollment Headcount Summary Report
  - Best Practices
- Enrollment Headcount Detail Report
  - PivotTable Ideas
- FTE Detail Report
  - PivotTable Example



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## FY20 Excel Video

- Simple formulas to troubleshoot student FTEs
- VLOOKUP to add LEA names to a report
- Macro to format an FTE Detail report
- Concatenation and conditional formatting to verify calendar data and student data



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## FY19 Excel Video

- Create a Macro to Format a Spreadsheet
- Calendar Data Verification
- Create a Dropdown List in Excel
- FTE Detail Report Subtotaling



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## FY18 Excel Video

- ODDEX Student Cross Reference (SCR) Export
- Calendar and Student Data Comparison
- Staff Data Formatting to Share with District Staff
- FTE Detail Report Subtotaling
- FTE Detail Report PivotTable



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## Summary

- Basic Excel techniques can be very useful when troubleshooting
  - EMIS data in the Student Information System
  - EMIS reports
- These techniques should be part of your everyday practices



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## Resources

- EMIS Manual
- Access previous EMIS Alliance sessions
  - <https://community.mcoecn.org/display/EM/EMIS+Alliance+Public+Space>
- Microsoft Excel Help within Excel “?” Articles and Videos
- Google it
- Microsoft Excel Classes
- Your ITC



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## Questions?

If you would like a certificate of attendance for this training, you must complete the below feedback form within 5 business days of this training

<https://tinyurl.com/EA-District-Feedback>



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