

# Compare Xero with Portal and Determine Missing Invoices

```
function A = AnalyzeMonth(currentmonth, Xero, Seminars)

%currentmonth = "July";
MonthNames = ["January" "February" "March" "April" "May" "June" ...
    "July" "August" "September" "October" "November" "December"];
filename = 'OutputDoc.xlsx';

%currentmonth = "July";
currentmonthnumber = find(strcmp(currentmonth, MonthNames));
```

## Pull out Seminars from Portal and Xero for just the month of interest

```
% select month you want to focus on
for i = currentmonthnumber %1:length(montharray)
    %ID location of seminars in KPI and Xero
    thisMonthSeminarIndex = find(currentmonthnumber == Seminars.Date);
    thisMonthXeroIndex = find(currentmonthnumber == Xero.Date);

    %ID seminars in KPI
    thisMonthSeminars(:,1) = Seminars.School(thisMonthSeminarIndex);
    thisMonthSeminars(:,2) = Seminars.Cost(thisMonthSeminarIndex);
    thisMonthSeminars

    %ID seminars in Xero
    thisMonthXero(:,1) = Xero.School(thisMonthXeroIndex);
    thisMonthXero(:,2) = Xero.Cost(thisMonthXeroIndex);
    thisMonthXero

    %save Xero seminar cost as independent variable
    XeroSeminarCost = thisMonthXero(:,2);

    %number of seminars in the KPI report this month
    monthseminarlength = length(thisMonthSeminars(:,1));
    %number of seminars in Xero this month
    monthxerolength = length(thisMonthXero(:,1));

    indexpermonth = 1;
```

## Step through seminars from the portal this month and isolate matching invoices

```
%%STEP THROUGH KPI SEMINARS THIS MONTH%%
%compare with Xero seminars
for movethroughmonth = 1:monthseminarlength
    %current school
    currentschool = thisMonthSeminars(movethroughmonth,1);
```

```

%if there's a 0 there we already recorded the school - move on
if str2double(currentschool) == 0
    %movethroughmonth = movethroughmonth +1;
    continue
else
    %find this school in the list of seminars
    %will likely return an array and not a single value
    %we probably came multiple times
    FindInSchool = find(currentschool == thisMonthSeminars(:,1));
    %find this school in list of invoices
    %will likely return an array and not a single value
    %we probably charged multiple times
    FindInXero = find(currentschool == thisMonthXero(:,1));
    %sum school cost on KPI
    SchoolCostSum = sum(str2double(thisMonthSeminars(FindInSchool,2)));
    %sum school cost on Xero
    XeroCostSum = sum(str2double(XeroSeminarCost(FindInXero)));
end

%erase multiples from KPI list
thisMonthSeminars(FindInSchool,:) = 0;
%erase multiples from Xero list
thisMonthXero(FindInXero,:) = 0;

```

## Record comparison between Xero and Portal

```

%RECORD SCHOOL INFORMATION IN ARRAY%

%cell array of school, KPI cost, Xero cost, and difference
FinalCompare{1,i}(indexpermonth,1) = currentschool;
FinalCompare{1,i}(indexpermonth,2) = SchoolCostSum;
FinalCompare{1,i}(indexpermonth,3) = XeroCostSum;
FinalCompare{1,i}(indexpermonth,4) = XeroCostSum - SchoolCostSum;
indexpermonth = indexpermonth +1;

end

%get rid of 0s in Xero list- inserted as placeholders in
%seminars dealt with
thisMonthXero(strcmp(thisMonthXero(:, 1), '0'), :) = [];

```

## Step through invoices not matched with a seminar in the portal

```

%%STEP THROUGH XERO SEMINARS THIS MONTH%%
%any found on KPI have been recorded. This isolates those not on KPI%%

%insertintofinal = indexpermonth-1;

```

```

insertintofinal = indexpermonth;
for x = 1:length(thisMonthXero(:,1))

    currentinvoice = thisMonthXero(x,1);

    %if current invoice is a 0 that means it's been dealt with-skip
    if str2double(currentinvoice) == 0
        continue
    %otherwise, sum all times school was charged
    else
        FindXeroDiff = find(currentinvoice == thisMonthXero(:,1));
        FindXeroDiffSum = sum(str2double(thisMonthXero(FindXeroDiff, 2)));
    end
    %mark invoice dealt with as 0
    thisMonthXero(FindXeroDiff, :) = 0;

```

## Record information in the master array

```

%RECORD SCHOOL INFORMATION IN ARRAY%
%add onto previously created array
FinalCompare{1,i}(insertintofinal,1) = currentinvoice;
FinalCompare{1,i}(insertintofinal,2) = 0;
FinalCompare{1,i}(insertintofinal,3) = FindXeroDiffSum;
FinalCompare{1,i}(insertintofinal,4) = FindXeroDiffSum;
insertintofinal = insertintofinal + 1;
end

clear thisMonthSeminars
clear thisMonthXero

%uncomment line below if recording information from multiple months
% sheet = strcat('Sheet', 'f%', month);

%make an array of the final information to export
A = FinalCompare{1,i}(:, :);
toprowlabels = ["School Name" "Portal Amount" "Xero Amount" "Difference"];
A = [toprowlabels; A];

%export final information
writematrix(A,filename,'Sheet', currentmonth);

% newExcel.Visible = true;
% newExcel.DisplayAlerts = false;
% newExcel.Sheets.Item(1).Delete;

end

```

```

thisMonthSeminars = 129x2 string array
    "R445"          "580"
    "R445"          "580"
    "R445"          "580"

```

"R445"	"580"
"Q425"	"290"
"Q425"	"290"
"Q425"	"290"
"Q425"	"290"
"X089"	"290"
"X089"	"290"
"X089"	"290"
"X089"	"290"
"X089"	"290"
"X089"	"290"
"X089"	"290"
"X089"	"290"
"Q501"	"290"
"M552"	"290"
"M552"	"290"
"Q501"	"290"
"M552"	"290"
"X299"	"290"
"X299"	"290"
"X299"	"290"
"X299"	"290"
"Mercer County Community College"	"400"
"Mercer County Community College"	"400"
"K409"	"580"
"K409"	"580"
"K409"	"580"
"K409"	"580"
"X440"	"580"
"X440"	"580"
"X433"	"580"
"X433"	"580"
"X433"	"580"
"X433"	"580"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"AP for All"	"290"
"X263"	"290"
"Q314"	"290"
"X263"	"290"

"Q314"	"290"
"X263"	"290"
"Q314"	"290"
"X263"	"290"
"Q314"	"290"
"X558"	"580"
"X558"	"580"
"X558"	"580"
"X558"	"580"
"Edison High School"	"580"
"X355"	"580"
"K348"	"290"
"Edison High School"	"290"
"X303"	"290"
"K348"	"290"
"Edison High School"	"580"
"X355"	"580"
"K348"	"290"
"Edison High School"	"580"
"K348"	"290"
"Edison High School"	"580"
"X355"	"580"
"K348"	"290"
"Edison High School"	"580"
"X303"	"290"
"K348"	"290"
"Edison High School"	"580"
"X355"	"580"
"K348"	"290"
"Edison High School"	"580"
"K348"	"290"
"Edison High School"	"580"
"K348"	"290"
"Edison High School"	"580"
"X303"	"290"
"K348"	"290"
"Edison High School"	"580"
"K348"	"290"
"Edison High School"	"580"
"K429"	"580"
"K429"	"580"
"K429"	"580"
"X303"	"290"
"K549"	"290"
"K549"	"290"
"K549"	"290"
"K549"	"290"
"K409"	"290"
"K409"	"290"
"K409"	"290"
"K409"	"290"
"K493"	"580"
"K493"	"580"
"K493"	"580"
"K493"	"580"
"M555"	"580"
"M555"	"580"
"R445"	"580"
"R445"	"580"
"R445"	"580"
"R445"	"580"
thisMonthXero = 2x2 string array	
"X217"	"150"
"Edison Township Board of Education"	"5245"
A = 24x4 string array	

"R445"	"4640"	"0"	"-4640"
"Q425"	"1160"	"0"	"-1160"
"X089"	"2320"	"0"	"-2320"
"Q501"	"580"	"0"	"-580"
"M552"	"870"	"0"	"-870"
"X299"	"1160"	"0"	"-1160"
"Mercer County Community College"	"800"	"0"	"-800"
"K409"	"3480"	"0"	"-3480"
"X440"	"1160"	"0"	"-1160"
"X433"	"2320"	"0"	"-2320"
"AP for All"	"8120"	"0"	"-8120"
"X263"	"1160"	"0"	"-1160"
"Q314"	"1160"	"0"	"-1160"
"X558"	"2320"	"0"	"-2320"
"Edison High School"	"6670"	"0"	"-6670"
"X355"	"2320"	"0"	"-2320"
"K348"	"3190"	"0"	"-3190"
"X303"	"1160"	"0"	"-1160"
"K429"	"1740"	"0"	"-1740"
"K549"	"1160"	"0"	"-1160"
"K493"	"2320"	"0"	"-2320"
"M555"	"1160"	"0"	"-1160"
"X217"	"0"	"150"	"150"
"Edison Township Board of Education"	"0"	"5245"	"5245"