

# Key Indicator Reporting Tool

## Executive Summary

LDS Missions rely heavily on the tabulation, reporting, and analysis of key statistics. These statistics measure missionary activity in baptisms, confirmations, lessons taught, new investigators found, and other key indicator statistics. Most missions operate using paper-based systems that are inefficient and disorganized, which makes it difficult for mission leadership to make tactical and strategic decisions for each week and each transfer.

The Key Indicator Reporting Tool provides a simple interface for office staff to set up zones, districts, areas, companionships, and per-companionship statistics. The interface handles loading old reports and saving new reports using a simple, intuitive design. This reporting information is tabulated into a central pool of data that can be easily analyzed using pivot tables and other excel-based tools.

Zone	District	Area	Companionship	Baptisms	Confirmations	Dates	Sacrament	Member Lessons	Lessons	Progressing Investigators	Re
Olomouc	Olomouc	Olomouc North	Caleb & Gideon	15	3	12	5	7	9		17
Olomouc	Olomouc	Olomouc South	Caleb & Daniel	9	18	15	14	12	14		20
Olomouc	Olomouc	Olomouc Center	Daniel & Daniel	12	4	4	1	12	16		4
Olomouc	Zlin	Zlin North	Ephraim & Daniel	12	7	9	10	9	6		18
Olomouc	Zlin	Zlin South	Adam & Ephraim	14	2	6	11	2	15		3
Brno	Brno	Brno North	Gideon & Adam	3	11	9	10	14	7		7
Brno	Brno	Brno South	Caleb & Adam	10	18	3	10	12	3		20
Brno	Brno	Brno East	Daniel & Ephraim	15	1	6	15	7	14		18
Brno	Brno	Brno West	Benjamin & Adam	15	8	6	18	15	6		19
Brno	Jihlava	Jihlava	Caleb & Caleb	8	15	16	7	7	17		4
Brno	Jihlava	Třebíč	Daniel & Frank	9	20	9	14	4	12		3
Prague	Prague	Hradčanská	Daniel & Caleb	14	17	8	15	20	11		8
Prague	Prague	Office	Benjamin & Frank	6	11	12	7	18	19		17
Prague	Prague	Assistants	Adam & Gideon	6	5	4	6	17	4		7
Prague	Ploen	Ploen East	Caleb & Benjamin	17	10	10	13	5	14		14
Prague	Ploen	Ploen Center	Gideon & Ephraim	18	4	18	16	13	6		11
Hradec Kralove	Hradec Kralove	HK North	Frank & Caleb	9	14	9	7	4	6		14
Hradec Kralove	Hradec Kralove	HK South	Gideon & Frank	8	20	5	19	18	14		1
Hradec Kralove	Jicin	Jicin	Gideon & Caleb	3	12	6	6	7	17		13
Hradec Kralove	Uberec	Uberec North	Ephraim & Frank	20	5	7	19	15	18		8
Hradec Kralove	Uberec	Uberec South	Adam & Benjamin	2	19	7	7	4	3		14
Slovakia	Banska Bystrica	Banska East	Gideon & Benjamin	11	20	7	2	1	14		16
Slovakia	Banska Bystrica	Banska West	Benjamin & Daniel	8	4	17	9	2	19		19
Slovakia	Bratislava	Bratislava Center	Ephraim & Benjamin	7	16	10	3	16	8		4

## Implementation Documentation

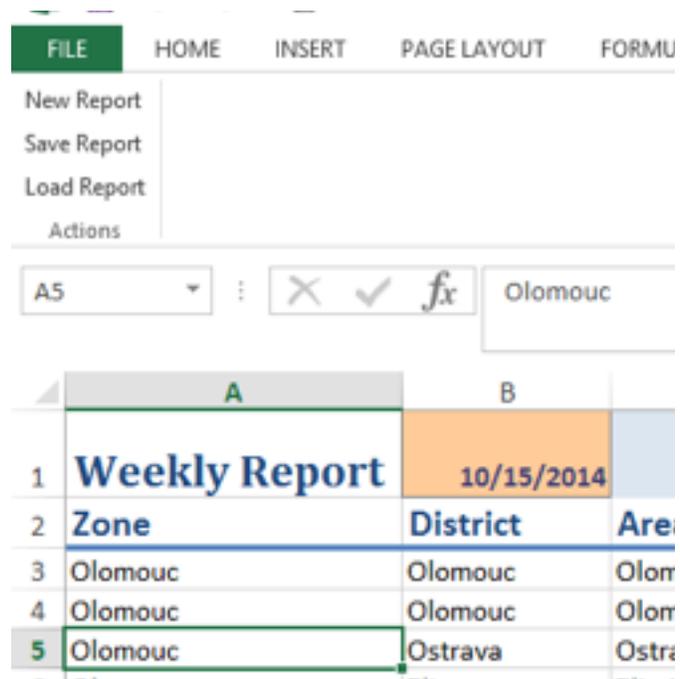
The project consists of two basic components: A report editor and a pivot table to review data loaded into the system. The report editor provides the interface for creating and updating all data loaded into the system. The pivot table view defaults to viewing key indicator statistics by date and zone.

### Report Editor

The report editor consists of a basic tabular layout, showing columns for Zone, District, Area, Companionship, and associated key indicators. At the top, users may enter the date they wish to save or edit. Users may then enter whatever information they wish in the table to define appropriate area information and statistics. Information entered replaces existing data for a given date. The ribbon tab presents options to load and save data where appropriate.

The ribbon tab also presents a button to start a new report, which loads the most recent companionship and area information

The report editor is extremely minimalist by design. Although more advanced features and formatting was considered, I decided that keeping the tool's interface as simple as possible would enable non-technical and technical users to quickly and easily setup and report on companionship performance.



### Analysis

The analysis tab presents the fully denormalized data set in a pivot table for analysis, slicing, and extraction.

The functionality of this tab is Excel's default pivot table functionality.

Future iterations of this project could include further analysis tools,

enabling mission leadership to forecast

mission unit performance, or to potentially score and correlate missionary performance.

Column Labels	1-Jan	1-Oct	8-Oct	15-Oct	22-Oct	29-Oct	5-Nov	12-Nov	Grand Total
Sum of Baptisms	1	1	290	290	290	290	290	1103	2555
Sum of Confirmations	1	1	308	308	308	308	308	1393	2935
Sum of Dates	3	3	274	274	274	274	274	1613	2989
Sum of Sacrament	5	5	291	291	291	291	291	1632	3097
Sum of Member/Lessons	20	20	295	295	295	295	295	1230	2725
Sum of Lessons	13	13	336	336	336	336	336	1300	3006
Sum of Progressing	7	7	347	347	347	347	347	1311	3060
Sum of Referral/Received	4	4	266	266	266	266	266	1372	2710
Sum of Referral/Contacted	4	4	303	303	303	303	303	1316	2819
Sum of New/Investigators	7	7	290	290	290	290	290	1621	3085
Sum of RCLAc	8	8	307	307	307	307	307	1495	3046

### Discussion of learning & difficulties

The greatest difficulty was keeping it simple. A key-indicator management system is a project ripe for complexity. A fully-normalized database connected to an excel workbook would be technically very interesting to develop, but may introduce unnecessary complexity that would impact the user's ability to use the tool as a whole. I spent a fair amount of time experimenting with different data storage and retrieval mechanisms before settling on a fully denormalized data store.

Zone	District	Area	Companionship	Baptisms	Confirmations	Dates	Sacrament	Member Lessons	Lessons	Progressing Investigators	Re
Slovakia	Konice	Konice	Gideon & Daniel								
Slovakia	Trencin	Trencin	Frank & Benjamin								
Slovakia	Bratislava	Bratislava South	Adam & Caleb								
Slovakia	Bratislava	Bratislava North	Adam & Frank								
Slovakia	Bratislava	Bratislava Center	Ephraim & Benjamin								
Slovakia	Barrika Spytka	Barrika West	Benjamin & Daniel								
Slovakia	Barrika Spytka	Barrika East	Gideon & Benjamin								
Heads of Wales	Liberec	Liberec South	Adam & Benjamin								
Heads of Wales	Liberec	Liberec North	Ephraim & Frank								
Heads of Wales	Zich	Zich	Gideon & Caleb								
Heads of Wales	Heads of Wales	HK South	Gideon & Frank								
Heads of Wales	Heads of Wales	HK North	David & Caleb								
Prague	Praha	Praha Center	Gideon & Ephraim								
Prague	Praha	Praha East	Caleb & Benjamin								
Prague	Praha	Suchbátka	Adam & Gideon								
Prague	Praha	Office	Benjamin & Frank								
Prague	Praha	Hradčanka	Daniel & Caleb								
Bino	Milava	Trojs	Daniel & Frank								
Bino	Milava	Milava	Caleb & Caleb								
Bino	Bino	Bino West	Benjamin & Adam								
Bino	Bino	Bino East	Daniel & Ephraim								
Bino	Bino	Bino South	Caleb & Adam								
Bino	Bino	Bino North	Gideon & Adam								
Olomouc	Zlin	Zlin South	Adam & Ephraim								

One particular point that may appear to be a glaring omission is transfer information. Although missions have a sort of transfer heartbeat that often sets the tempo of mission life, this project is transfer agnostic for a few reasons. First, mission transfer durations tend to be six weeks, however sometimes a transfer may be shorter or longer as an exceptional or even as a matter of course. The Czech/Slovak Mission, for example, operates on 9-week long transfer cycles. Other missions operate on shorter periods of time. Additionally, tracking performance by transfer has a tendency to negatively impact missionary planning and performance. Missionaries fall into a trap of short-term planning rather than long-term planning. Long-term planning is far more appropriate for working with investigators, who often need longer than one transfer to be prepared for baptism. For missions who rely significantly on transfer-based planning and reporting, transfers can be considered while reading an output report from the system.

I learned a fair amount about developing the ribbon, which I'd never implemented from scratch before (the other homework projects provided pre-configured ribbon settings). The RibbonX tool was extremely helpful, and was interesting to experiment with to prepare my own ribbon for this project.

### Assistance

I developed this project entirely on my own with zero assistance, with the exclusion of reference material online.