CRGroup Whitepaper:
Digging through the Data

Reporting Options in Microsoft® Dynamics™ GP

The objective of this paper is to provide greater insight on each of the reporting options available to you within Dynamics GP 2015 and to illustrate why multiple choices are needed.

Corporate Renaissance Group

Contents

One of the strongest features of Microsoft Dynamics GP is the abundance of reporting options it provides across the application. At first glance the options may seem confusing and overwhelming however each has a unique and compelling use. The objective of this paper is to provide greater insight on each of the options and to illustrate why multiple choices are needed.

Reporting and Stakeholders

Given the reporting choices available within Dynamics GP, it is necessary to understand the stakeholder's needs for information that is relevant to them. The following diagram summarizes the various reporting options in the context of display options and stakeholder requirements. Each of the reporting options are reviewed in detail in the pages that follow.

Table 1: Stakeholders and Reporting needs

Display Option/Format	Dynamics GP Options	Stakeholders
Dashboards	Business Analyzer	CFO and Executive Team
Adhoc Reports	Custom SSRS and Analysis Cubes	All
Structured Reports	Management Reporter	CFO, Executive Team & Shareholders
	Pre-defined SSRS Reports Report Writer	Accounting and Finance Team
Raw Data	SmartList & Excel Reports	Accounting and Finance Team

Display Options

Before discussing the actual reporting options it is important to distinguish the type of report that is needed. In this case let us draw a distinction between raw data, structured reports, ad hoc reports and dashboards since Dynamics GP has options for each type of report being envisioned.

I.   Raw Data:

Raw data output is required for various reasons and always involves further manipulation of the data in order to generate the desired outcome. Often this type of requirement is referred to as a "data dump". For example, a user may want to prepare a customer list, sorted by geography and include all relevant contact information. The desired output is a Microsoft Excel listing with 1 row per customer and many columns. Given the nature of the specific request, a simple data dump is desired. The main functional desires are output to Excel and the ability to choose elements of customer data and search and filter the list as needed before creating the output. As standard rule of thumb, both SmartList and Excel reports are ideally geared to raw data output. Each provides a quick and easy export to Excel and allow users to analyze or format as needed. More advanced users may use this data as a source for pivot tables, charts and even Excel-based dashboards.

II.   Structured Reports:

In many organizations, there is a need for standard reports which are generally formatted with headers, sections, lines, subtotals and grand totals. Examples of standard reports would be: financial statements (P&L, Balance Sheet and Statement of Cash Flows), Trial Balance by GL Account, Aged Receivables Listing, Aged Payables Listing, Outstanding Purchase Orders, etc. These standard reports are usually generated on a frequent basis (daily, weekly or monthly). These are designed once and used often. These reports can also be designed such that it allows the report generator options or parameters for selection. Indeed a user may desire a Payables listing for a certain category or class of vendors, so an effective aged payables report would allow such as selection.   In Dynamics GP, structured reports are provided in various forms including native Report Writer reports, SQL Reporting Services (SSRS) and Management Reporter.

III.   Adhoc Reports:

In addition to structured reports, ad-hoc reports are often needed to satisfy analysis needs.   While raw data can be used for this purpose, Analysis cubes are the preferred choice. They provide an analysis dataset that is different than a raw data dump because it has a specific focus and has been pre-filtered and aggregated to suit the analysis needs. For instance, analysis data may focus exclusively on sales revenue or inventory. In addition it may exclude all voided and un-posted transactions and it may provide groupings and hierarchies for items such as dates, customers and items.   The data is refreshed on a recurring basis so that it's always up to date and available for analysis. Analysis cubes are also an excellent data source for Dashboards.

IV.   Dashboards:

Dynamics GP dashboards provides richly formatted, visual representations of data. The dashboards can display information on actual as well as the target, show trends, provide comparisons and highlight exceptions.   Often dashboards have a capability to drill-down to display further levels of detail. In Dynamics GP, the native dashboard functionality is delivered through Business Analyzer.

Stakeholder Needs

I. CFO and Executive Team:

The CFO and Executive will be interested in regular and timely financial reporting. They want formatted output that is based on both Financial Statements and analysis data that enables continual review of the health of the business. This stakeholder group will benefit from the use of Business Analyzer, as it will provide up-to-date information in an easy to use self-service environment. The data feeding the reports, KPI's and Dashboards in Business Analyzer will be sources from analysis cubes or SSRS reports written specifically for this purpose.

II. Controller and Accounting:

Since the Controller and Accounting functions are hands on in terms transaction entry their main reporting requirements are mainly going to revolve around raw data and structured reports. To provide easy access to transaction lists and master data queries SmartList and Excel Reports are recommended. Structured reports can be easily generated from within the system using the native Report Writer and also coupled with existing SSRS reports. In addition, Management Reporter will be required at the Controller level to ensure accurate and timely Financial Statements are generated. The Controller's function may also necessitate analysis of data on a regular basis so analysis cubes are also recommended.
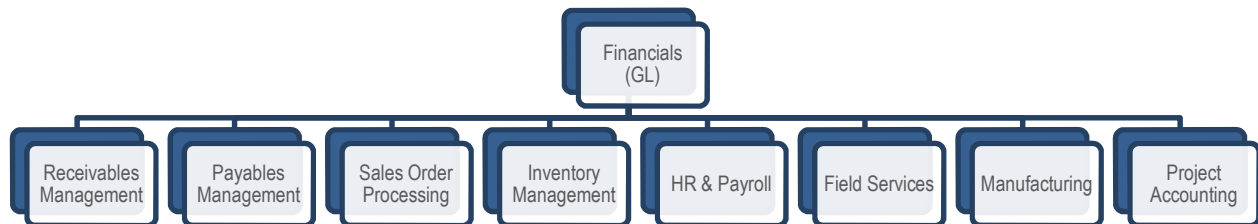
III. Shareholders and Investors:

This stakeholder group will be interested in statutory financial reporting and will rely heavily on the financial statements created using Management Reporter. In addition, some custom SSRS reports will help to ensure that information can be presented over each reporting period.

Getting Beyond the GL

Before we deal with the reporting options, it is necessary to provide some context about the structure of the application. Microsoft Dynamics GP is a robust and powerful business system. It is comprised of various modules which are all linked to Financials (GL), as illustrated in Figure 1 below.

Figure 1: Dynamics GP Modules

Each module contains a wealth of useful data for reporting purposes. The data is generally one of two types: master data or transaction data.

Master data:

Master data is stored in each module and includes set-up data. For example the Financial module houses the multi-segment general ledger accounts and their associated attributes (account category, P&L, balance sheet, currency etc.). The Payables module contains vendors and their associated address details and customers and their associated address details can be found in Receivables Management.   Often users desire reports on master data for items such as a chart of accounts list, a customer list, a vendor list, a listing of active inventory items etc.

Transaction data:

When transactions are entered in the system a host of detail is associated with the specific transaction, including master data and many details about the transaction.   As data is posted from a sub-module to Financials, only certain elements of data are passed with it. As a result the GL does not contain all the data associated with a specific transaction. As an example, a simple payables invoice will create 2 transactions, one detailed transaction in Payables Management, and a summarized financial transaction in the GL. The latter would not contain details such as the payment due date, tax percentage breakdowns etc.

The implication is clear: the data that resides in the GL cannot be the only dataset used for reporting. Some reporting will always be required from the other modules in the system. This fact makes it necessary to have reporting tools that suit the data being reported or analyzed.

Reporting Options

Another view of the reporting and analytics solutions can be seen in the Table 1 below. Given the need for multiple reporting options, another important consideration is the type of report that is needed. In this case let us draw a distinction between formatted reports, ad-hoc reports and dashboards since Dynamics GP has options for each type of report being envisioned. In this table, we refer to display option as different ways of reporting: standard, ad hoc, analytics and dashboards.

Table 2: Dynamics GP Reporting Tools

Display option	Reporting tools	Dynamics GP Modules	Can they be modified?	Primary Authoring	Output	Integrate external data?	Lag time
Adhoc Reporting	SmartList	All	Yes	Business	Word and Excel	No	Real Time
Adhoc Reporting	SmartList Designer	All	Yes	Technical	Word and Excel	Yes	Real Time
Adhoc Reporting	Microsoft Excel Reports	All	Yes	Business	Excel	No	Real Time
Standard Reports	Microsoft Dynamics GP Report Writer	All	Yes	Technical	Screen, text and comma-delimited	No	Real time
Standard Reports	Microsoft Management Reporter	GL Only	Yes	Business	Screen, Excel, XPS	No	Real Time
Standard Reports and Dashboards	Microsoft SQL Reporting Services	All	Yes	Technical	Screen, Excel, Word, PowerPoint, HTML, etc.	Yes	Real Time
Adhoc Reports and Analysis	Analysis Cubes for Microsoft Dynamics GP	GL, Sales, AP, AR, Inventory	Yes	Business	Excel or other Business Intelligence tools	Yes	Lag Time
Dashboards	Microsoft Dynamics GP Business Analyzer		No	Technical	Screen	Yes	Lag Time

Reporting Tools

We now describe the various reporting tools available within Dynamics GP.

SmartLists

SmartLists are used to create customized inquiries to provide easier, faster access to information stored in the Microsoft Dynamics GP system. It is Dynamics GP "data dumping" tool of choice and is a favorite amongst users because it is simple and easy to use. Dynamics GP ships with pre-defined SmartLists for all modules. These SmartLists include both master data and transaction data. SmartLists allow quick views on source data and allows the user to add data fields, filter and search to make the data view specific to their requirement. Once the data view is finalized it takes one click to export the information to Microsoft Excel or Word for further analysis. In addition, if a user clicks on a row in a native SmartList it will open the associated master data or transaction record in Dynamics GP.

Benefits:

- Simple and easy to use
- Default SmartLists available for all modules
- Quick and easy to add data fields, sort, filter and search
- Modified views can be saved to make it easier to generate the same inquiry in the future
- Modified views can be shared with everyone or saved only for a specific user
- Once click to save in Microsoft Excel or Microsoft Word formats
- Filters can be applied to SmartLists to create notifications on Dynamics GP home page (example: show outstanding Purchase Orders worth over $100,000)
- Can drill back to GP to open associated master data

Limitations:

- Datasets are predefined. They can be extended using SmartList Designer (discussed below)
- Users must be careful to provide appropriate filters as SmartList will show all data in the application (example voided transactions will be included unless restricted by the user)
- SmartLists provide a column-based data export. There are no subtotals included.
- SmartList only expose data of the Dynamics GP company within which the user is working. SmartLists in one company cannot expose details of another Dynamics GP company without further modification using SmartList Designer.

Extending SmartLists using SmartList Designer

SmartLists can be extended to provide further data options through the user of SmartList Designer. This functionality will allow a technically-savvy user to extend the fields available within each SmartList

and/or add completely new SmartLists. Data available includes data within the Dynamics GP application or data from other SQL databases. Some of understanding of tables and database structures are required to effectively use this tool. However once a new view is created it can be used by business users in exactly the same fashion as default SmartLists.

Microsoft Excel Reports

Decision makers who want to perform adhoc queries on Microsoft Dynamics GP data without logging in to the system can work with Excel Reports, which are based on the data that can be found in SmartList favorites. Excel reports may be deployed to different locations, both on a network and at a user level. These reports retrieve data directly from the Microsoft Dynamics GP database, thus offering real-time reporting which may be refreshed at any time. Additionally, users who are experienced with the appearance and behavior of Microsoft Office Excel will find that using Excel Reports is intuitive and familiar to them.

Benefits:

- Can be used by anyone who does not use Microsoft Dynamics GP
- Default reports are available for all modules
- Tailored reports can be save for further use
- Simple and easy to use who are familiar with Excel
- Quick and easy to access, sort, filter and search
- Can view and work from Microsoft Dynamics GP, network shares, Microsoft Office SharePoint Server, or Microsoft Office Outlook

Limitations:

- Datasets and columns are predefined. They can be extended using Excel Report Builder
- Users must be careful about the date of capturing data if it is not refreshed
- Cannot drill back to GP master data source

Extending Excel Reports using Excel Report Builder

Similar to SmartList Designer, the datasets for Excel reports can be extended through the use of Excel Report Builder. This is an additional licensing option. Excel Report Builder allows you to take any table in Microsoft Dynamics GP, or other tables from the same SQL server (given appropriate security permissions) and build Excel Reports, including calculated fields, table relations, and much more.

Microsoft Dynamics GP Report Writer

Microsoft Dynamics GP includes hundreds of reports that you can print from within windows as you enter and post transactions, create inquiries, and enter or access information. For example, you can easily print reports that contain vendor, customer, employee, item records and trial balances. The printing destinations for reports, include screen, printer, a file, or any combination of these destinations. A user can also send reports by e-mail to others.   Beyond reports, the Dynamics GP Report Writer is also used to modify all forms within the application includes things such as checks, invoices, purchase orders etc.

Benefits:

- Simple and easy to use
- Default reports are available for all modules
- Every report has prompts (parameters) that can be applied and saved for future reference
- Reports can be modified and custom reports can be created
- Reports execute very quickly
- Reports can be scheduled using Dynamics GP native report scheduler.

Limitations:

- Output is limited to screen, print, tab-delimited or text. There is no native export to Excel or Word (although this is available using SSRS reports, discussed later in this document)
- Modifications to existing reports or custom reports require expertise in Report Writer, which would not be considered a primarily technical report authoring environment
- There is limited formatting capability
- There is no visualization capability with this

Microsoft Management Reporter

Management Reporter is the default reporting engine for Financial Statements and formatted financial reports that are based on general ledger data.   The application provides a powerful business user report authoring environment that was specifically designed for financial reporting.   To create reports users design row and column formats and have the option to break-down a report using trees (for example a P&L may be viewed by department by creating a department tree). Once a report is designed it can be generated on demand or set on a schedule for recurring generation. Schedules reports can be generated directly to Microsoft SharePoint libraries and desired server folders.   Reports can be also be grouped and the group can be scheduled. Output includes direct viewing via Management Report Viewer or web browser, Microsoft Excel, XPS or print.

Benefits:

- Reports can be published to a browser for easy report consumption
- Reports can be scheduled to update on a recurring basis
- Financial report writer that is built for business users
- Reporting is based on multi-segment Chart of Accounts structure and includes Categories, 4 User-Defined Fields and Analytical Accounting
- Allows reporting of actuals versus budget
- Data visualization capabilities exist within Report Viewer
- Annotation capability exists with Report Viewer
- Report groups and scheduling capability (including SharePoint destinations)
- Extensive formatting capability including company logos allow Board quality financial statements
- Drill-down capability from report to transaction detail
- Allows multi-company consolidation

Limitations:

- Based on General Ledger data only
- Visualizations are currently available in viewer only
- Annotations are stored by report version and must be manually copied forward to future report renderings
- Report Viewer formatting options are not all carried over in Excel rendering

Microsoft SQL Reporting Services (SSRS)

Microsoft SQL Server Reporting Services (SSRS) is a browser-based reporting tool that is used to create, modify, and deploy reports that are based on Microsoft SQL Server data. Data is presented in tabular, graphical or visual formats depending on the requirement.   Dynamics GP is shipped with over 250 pre-designed SSRS reports and various KPI charts and graphs.   The SSRS reports can be included within Business Analyzer, as discussed in later sections.

Benefits:

- Authoring Capabilities: provides tools to create traditional or interactive reports. This includes a graphical report design tool and wizards to help make the process more straightforward.
- Management Capabilities: administrators can use either a web-based management tool or Microsoft SQL Server Management Studio to organize reports and data sources, schedule report publication and delivery, and track history.

- Security Capabilities: provides a role-based security model to control access to reports and underlying data.
- Delivery Capabilities: reports can be delivered to a web portal, emailed to users, or posted to a folder hierarchy that is accessed with the web-based report server. You can use subscriptions, search and navigation features to access the reports that users require, and to set delivery preferences.
- Integration: SSRS integrates with many other Microsoft products without additional programming and customization. These products include Visual Studio, Office, and Microsoft Office SharePoint Server. It also integrates with Microsoft Business Intelligence products such as Microsoft SQL Server Integration Services and SQL Server Analysis Services to provide extensive analysis and data mining.
- Output in many forms including: XML, CSV, PDF, HTML, TIFF, Word and Excel
- Over 200+ pre-configured reports shipped with Dynamics GP
- Applicable to all modules and can be extended to include datasets from other business applications
- Forms the basis of the Business Analyzer dashboard tool

Limitations:

- Technical report authoring tool: requires knowledge of table structures and SQL query language to create reports

Analysis Cubes for Microsoft Dynamics GP

Analysis cubes offer pre-aggregated and focused data sets from which users can create on the fly analysis using drag and drop functionality. The most basic presentation of cubes would be exposing them through a pivot table in Microsoft Excel. From here a user can select data base don relevant dimensions and measures. Dynamics GP has cubes available for various modules including General Ledger, Analytical Accounting, Sales, Inventory, Payables Management and Receivables Management.

Benefits:

- Easy to use
- Drag and drop creates an instant view of data
- Works very well with Microsoft Excel and allows formatting, graphing and charts
- Works with other popular business intelligence tools
- Data views can be saved and update on open
- Non finance (and non-GP) users can access the cubes if desired
- Can be used as a data source for SSRS report creation negating some authoring complexity
- Can be extended to include data from other systems
- Excellent data source for dashboards

Limitations:

- There is slight lag time as cubes are refreshed on a scheduled basis. Frequency of refresh largely depends on the underlying size of the dataset

Microsoft Dynamics GP Business Analyzer

Business Analyzer is an application that houses a user's favorite SSRS reports. It is deployed as a desktop client and is available directly within the home page of GP 2013. It allows users to quickly scroll through their reports to see up to date status of their business. Scrolling through the report is as easy as scrolling through a photo library. Users select their favorite SSRS reports and set them to a recurring refresh so that the reports are always up to date. This avoids the need to visit the SSSRS report library, pick a report and then select generate to see the results. In essence it put s all the reports directly on the user's desktop and gives them a financial news feed. Default reports are included with the installation and additional reports can be created by using SSRS and deployed to Business Analyzer.

Benefits:

- Integrated in Dynamics GP client and available as an app for devices running Windows 8.1.
- App allows publishing of Management Reporter reports
- Allows reports to be refreshed on a frequency selected by the user (as much as every 5 minutes)
- Provides an excellent KPI monitoring and dashboard experience
- Allows users to drill-down on KPI's and charts to greater levels of detail
- Leverages investment in SSRS
- Non finance (and non-GP) users can use it
- Can be extended to include data from other systems

Limitations:

- The application currently does not support the use of report parameters (if report parameters are in the underlying report default selections must be saved with SSRS report).

Summary

Taken together the valuable reporting toolset provided with Dynamics GP has the capability to meet and exceed the reporting requirements in most mid-market organizations. It offers compelling functionality to satisfy stakeholder desires while ensuring that the correct data can be accessed and reported in a meaningful way.

If you would like to learn more about reporting options in Dynamics GP, contact us! 1.800.576.6215