Document Overview

Congratulations on choosing the Maps for CommercialWare solution for your data needs. You have purchased a set of tools and training which will allow you and your organization to provide data in an easy to use, documented format. Whether you choose to use this data to feed data in real-time to a web site or another application or use it to support a real-time data repository for analysis, this set of tools will help you successfully make the data available for your needs.

This document is broken into four main sections: *What to Expect*, *Planning Your Maps For CommercialWare Implementation*, *Data Delivery*, and *Releasing Data to Business Users*.

The *What to Expect* section details resources required, what skill sets those resources required, and answers commonly asked questions about the implementation.

The *Planning Your Maps For CommercialWare Implementation* covers the steps needed to set scope for the implementation, training, and testing environments required.

Data Delivery details each of the phases of the development cycle including details about objectives for each phase, requirements for each phase, and training available for each phase.

Finally, the last section, *Release Data to Business Users* describes additional training available for the use of Hyperion with the data and benefits of the optional Measures for CommercialWare product.

What to Expect During Your Maps For CommercialWare Implementation

You have purchased a proven set of tools which will allow you to deliver your CommercialWare data in a format which can be customized to meet your specific needs. Along with the tools, you have purchased training from Taurus to help your resources become proficient using these tools. In addition to the training, Taurus will be supporting your resources to help through out the various stages of the implementation.

Resources Required

So what kinds of resources will you need on your project? You will need a project manager whose responsibility it will be to ensure that the business needs of your organization are met, that the resources working on the project can stay focused and have the resources they need to be successful.

During the course of the implementation, the project team will consist of the following types of resources from your organization:

- Project Manager.
- System administrators of the CommericialWare database server and machine chosen to house the new Maps for CommercialWare data foundation.
- CommericialWare data expert. This person will know and understand how you use CommericialWare, what modules you use, what an order, item, and such look like. This position can be filled by more than one expert if necessary.
- Data delivery resource. This person is typically a programmer. He/she should be knowledgeable in the operating systems where the source data and Maps for CommercialWare data foundation will reside. He/she should be able to create a table, create an index, and do a simple

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select statement using the database engine of choice for the Maps for CommercialWare Data Foundation. This person will be responsible for learning the tools needed to implement Maps for CommercialWare and will be responsible for delivering the CommericialWare data into the Maps for CommercialWare data foundation.

- Data Champions. These are the "power users" of the data that will be delivered. Their responsibilities include articulating what they need the data for and how they want the data delivered.

Taurus will be providing some resources to assist you throughout your implementation of Maps for CommercialWare. We will be providing:

- A project manager who will interface with your project manager and help work through priorities, issues, and help you understand trade offs of various business decisions.
- A trainer. This person will train your data delivery personnel on the use of the tools.
- A support organization available via self-serve case management bringing a combined 30 years of direct marketing and CommericialWare experience. These resources can answer questions about our products and act as a sounding board for any data related issues that you might run into during your implementation. Your data delivery personnel will be assigned self-serve logons as soon as they have been identified. This will allow them to submit and monitor questions and problems through the self-serve case management system.
- A sales representative who will act as another set of eyes during the implementation to ensure that the

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implementation goes smoothly and to ensure that you receive maximum benefit from the data that you deliver.

Roles and Responsibilities of Taurus and You during the Implementation	You will be responsible for the creation and maintenance of the Maps for CommercialWare Data Foundation using our tools. This includes the system administration of the new Maps for CommercialWare box, creation and maintenance of the new Maps for CommercialWare database, and the data delivery of data to that database. Data delivery tasks will include: creation of new target tables and indexes using the Taurus tools and database engine tools including any modifications necessary to support your data requirements, developing and managing the data delivery project, and setting up production process to keep the environment up-to-date and protected against any failure of network or equipment failure.

Taurus is responsible for answering your questions about our tools, act as a sounding board related to data issues that may crop up during the implementation and to help you be successful in achieving your business' goals through the delivery of information into the Maps for CommercialWare Data Foundation. |
| How long will the implementation take? | Implementation times depend on several factors that you can impact:

- The number of resources assigned to the data delivery phase of the project.
- The amount of time each resource can spend on data delivery.
- The number of tables required to satisfy your organization's data requirements. Taurus will work with you during the |

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planning phase of the project to help identify what data is required and determine the amount of time required to deliver that data.

- Data quality required to satisfy your data requirements. Maps for CommercialWare delivers the data that is currently residing in CommericialWare. However, the data in CommericialWare may be not be acceptable for your needs; for example orders may not have lines associated with them and you may not want to bring this data over. The Maps for CommercialWare solution doesn't eliminate any data (good or bad) from flowing into the Data Foundation - to eliminate these records, you would need to delete or correct them from CommericialWare.

Created on 8/19/08

Project Planning For Your Maps For CommercialWare Implementation

The objective of this phase is to define your data requirements, learn about the Maps for CommercialWare environment, to bring Taurus up to speed on your business and its short-term and long-term objectives. Two documents are produced from this phase: a roadmap detailing each and every table to be included in your Maps for CommercialWare implementation, "the scope", and an estimation of the effort in man hours to deliver the data into the Maps for CommercialWare data foundation.

Technical Turnover Call

The process begins shortly after the purchase of the software. Your sales representative will set a technical turnover call with Taurus and your key implementation members. The purpose of this call is:

- To introduce you to the technical team and outline the roles of sales and support throughout your implementation. We will review what was purchased and how it is going to be delivered.
- Discuss training that was purchased and how it will be delivered.
- Discuss how to place a support call. Discuss our support call triaging process and set your expectations on typical response times.
- Discuss future product updates including who in your organization should be notified and how you can get these updates when they become available.
- For Taurus, we want to understand your project, the players and your overall objectives so that we can successfully help with your implementation.

Present at the meeting from your staff should be the implementation project manager, the data

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delivery team, and the system administrator that will be responsible for installing and maintaining the software, and the original decision maker.

Representing Taurus on the call will be the sales representative and a support contact. This call, along with the others, will be recapped by Taurus in an email after the call is done.

Kickoff Meeting

Our next call is the kick-off meeting call. This call's objective is to understand fully what the business issues are and how the Maps for CommercialWare environment can help resolve those issues. From your staff, the following resources should be on the call: implementation manager, data delivery personnel, and your user data champions. Representing Taurus on this call will be the Taurus' implementation manager.

During this call, we like to examine your top ten business issues and understand what resolving these issues will achieve. We also like to learn about your business – what you sell, who you sell to and your use of CommericialWare. Taurus will recap the conversation and document these issues and the benefits that will be achieved if they are resolved in a recap email at the end of the call.

Taurus prefers to partner with its customers. Understanding your business, your needs and your issues allows us to guide you more effectively throughout the implementation process. We have found with the many other implementations the more we know about the client and their requirements, the more effective we can be during the implementation both in the initial delivery but in planning for future needs.

Maps For CommercialWare Architecture Training Session

The objective of this call is to introduce your team to the Maps for CommercialWare tool components, basic data model architecture of the data foundation, develop a common language in which to discuss the data model, and to provide a high-level introduction to the data delivery development steps.

On this call from your company should be the project implementation manager, the system administrators for the machines involved in the data delivery, and the data delivery team. Taurus will be represented by the implementation manager assigned to your account.

During this call, we will discuss:
- Software purchased. We will provide each executable's name and where it should reside in your environment.
- Data model concepts used in the Maps for CommercialWare Data Foundation. We will introduce both types of tables, base and breakout. We discuss their purpose in the data foundation. We will talk about the types of columns found in any Maps for CommercialWare table and their purpose. We will review mappings including their structure, imbedded documentation, and common features.
- Provide a high-level overview of the data delivery development process. Your team will be responsible for building the data movement routines that will be used by our tool to initially move the CommericialWare data into the Maps for CommercialWare Data Foundation and keep it up-to-date as changes occur. We provide a very high step-by-step overview of the process.

As with in the other calls, we provide a recap of the meeting and a copy of slides used to present these concepts. All the slides have notes providing the detail discussed during the training

session.

Setting Priorities for
Data Delivery
Meeting

The objective of this meeting is to define, in detail, what data will be incorporated into your Maps for CommercialWare implementation. There are 25 Maps for CommercialWare mappings which encompass all pre-defined target tables. No customer has ever implemented all the mappings, as some mappings are for specific CommericialWare releases and not for other CommericialWare releases.

During this call, we review target table by target table, reviewing what the table contains, how it is used, how it meets with your data requirements, discuss its analytic usefulness, and what type of CommericialWare site might have data in the source table.

On this call from your company should be the project manager, data delivery team members and your resident CommericialWare data source expert. Representing Taurus on this call will be Taurus' project manager.

The resulting deliverable from this is meeting is a list of target tables to be implemented and a relative priority for data delivery. This document is called the ROADMAP. The ROADMAP becomes the to-do list for the data delivery team. Each table listed as a data requirement will need to be created in the Maps for CommercialWare Data Foundation, have data moved into it and validated by your data delivery team members. Along with the ROADMAP, Taurus will provide an estimate of effort to develop, test, and implement the tables listed in the ROADMAP as part of scope. This estimate along with your resource availability should allow you to build a schedule for your data delivery team.

Installing the software and testing connectivity

Before we can begin moving data into the Maps For CommercialWare Data Foundation, we will need to install the software and ensure that we can connect to the test environments that you have created. Download instructions are sent to the decision maker at the time of purchase. The instructions provide a list of what software should be downloaded and the online *Quick Start Guide* outlines the steps needed to install the software. Most installations take less than 15 minutes per machine.

Once the installation of the software is complete, we will schedule a meeting with the system administrators and a Taurus support engineer to test connectivity to the source test environment and target test environment. This call takes about 30 minutes and covers the security mechanisms in place to ensure that "outsiders" don't access your data and the mechanics of starting and stopping listener processes.

Data Delivery

Once the planning is complete, the work can begin. During this phase, your data delivery team will:

- Be trained on the use of the purchased tools including the use of the `Studio` interactive development environment and the use and customization of the mappings to build appropriate target tables in the Maps for CommercialWare data foundation for your data requirements.
- Create empty target tables using `Studio` and unique index for your target table using the database interface program, e.g. `Enterprise Manager`.
- Develop and test data movement routines to initially load the data from the CommericialWare database into the Maps for CommercialWare data foundation.
- Validate the results of the initial data movement.
- Setup data capture of changes from the test CommericialWare environment.
- Develop and test incremental data movement routines to take the capture changes and apply them to the data in the Maps for CommercialWare data foundation.
- Validate the results of the incremental data movement.

Your data delivery team will deliver data in small logically related units called queues. A queue is a group of target tables which relate to each other. For example, the `ORD` queue contains all order related tables including `OEORDR`, `OEORDT`, and `OEORST`. They will complete all the above steps for a given queue and then put that queue into production. Once that queue is complete, they will be the development process for the next queue.

The development effort starts with training. The training is setup to cover each and every step needed to deliver data to the Maps for CommercialWare Data Foundation using our tools.

We work one-on-one with your data delivery team and teach them the skills needed. We shadow them throughout the initial development effort for the first queue and are typically talking with them every other day until that queue is in production. By working closely with your data delivery team throughout the entire development effort for a given queue, they will have been exposed to all the tasks needed to do the remaining queues.

Initial load script development

The first step of data delivery is to move the data from the CommericialWare database into the Maps for CommercialWare environment. This is done so that the two environments start off synchronized. During this stage of development, your data delivery team will:

- Create a new project repository for each queue. This project repository is typically an access database resident on their machine.
- In `Studio`, they will open their static CommericialWare test environment and their Maps for CommercialWare Data Foundation database.
- Using `Studio`, they will import macros needed by the development process.
- Using `Studio`, they will import the mapping for each target table in this queue and attach it to the source database. This will allow your data delivery team to preview the data before it is moved. It is at this stage that you can customize the target

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table to better suit your company's data requirements.

- Using `Studio`, they will create the target table and its unique index for each table that you choose to implement in this queue.
- Using `Studio`, they will create an initial load script for each source data object. Script properties can be edited to limit the number of rows being moved for testing, set commit rates, and create progress reports.
- Using `Warehouse` or `Studio`, they will run and test the initial load.
- Using `Warehouse`, once all the tables have been loaded for a queue, they will run the automated validation counts and validate sample data to ensure the column by column data movement meets your company's needs. Taurus provides templates for these validation routines which your data delivery team can modify to match your Maps for CommercialWare implementation.

This phase, for a given queue, is considered successful when a complete load of the source objects in the queue pass the validation reconciliation. The data delivery team cannot move to the next step of the development effort until this phase of development is successful.

Incremental script development

The objective of this phase is to build and test incremental scripts which will keep the Maps for CommercialWare Data Foundation up-to-date with data that has changed in CommericialWare.

The capture is done via the use of triggers. `Studio` builds and installs those triggers and the capture tables based on the mappings included

into a queue. The tables and triggers can be automatically added using `Studio` or if you prefer `DDL` can be generated and put in place by your database administrator.

Your data delivery team will develop the incremental scripts as follows:

- Create the incremental script and modify its properties to meet Maps for CommercialWare's requirements.
- Drag the load mappings used to create the initial load script into the incremental script. As the same mapping is used, you can be assured the column by column logic will be same for both the initial load script and the incremental load script.
- Setup the capture mechanism using the method that matches your environment.
- Enter add, updates, and deletes to each of the CommericialWare source tables that are part of this queue.
- Validate the data was captured by reviewing the captured data in either the capture file or tables.
- Run the incremental scripts using `Warehouse`.
- Validate that each transaction was processed and applied to the Maps for CommercialWare data foundation. The `Warehouse` execution output needs to be reviewed to ensure that no errors were encountered, and the Maps for CommercialWare tables need to be reviewed to ensure that the changes that were moved arrived as expected. The data should also be validated. Customers use SQL, `Studio` or their tool of choice to check that all records were inserted, updated or deleted as planned.
- Run the automated validation routines to ensure that the two environments are synchronized after applying all the

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changes to Maps for CommercialWare. This is the same process that will be used nightly to ensure that CommericialWare and Maps for CommercialWare are synchronized.

If the environments are synchronized and the data values are what are expected, the testing is considered to be complete. The data delivery team can then proceed to going live with this queue in production.

Going live with a queue	This is the last step in the development cycle. Once this step is complete, data for this queue will be delivered into the production Maps for CommercialWare environment at the interval you have chosen. Taurus will work with your data delivery team through their first go live helping them with the preparation, reviewing initial load results, and validating incremental data and the incremental script results.
Build production target tables and indexes	Preparation for going live begins with the setup of the target table and indexes in the production Maps for CommercialWare environment. The DDL generated by Studio can be used to build these environments or the team can use other tools to copy the structures for the queue from the test environment to the production environment.
Put scripts into production directories and make modifications to reflect new environment	For the first queue, the data delivery team will choose and create a directory structure to hold the production scripts and their output. Scripts will be moved into these directories and modified to point to the appropriate production environments. BAT templates provided by Taurus

will be modified by the data delivery team to reflect the chosen directory structures and location of scripts for Windows. If you choose to implement elsewhere, you will need to develop these on your own.

Do backup and install triggers on production CommericialWare environment

In order to start with a synchronized environment which is ready to receive incremental transaction, we need to create a sync point. This is done by doing a backup when no transactions are being processed in the production CommericialWare environment. At the same time, we apply setup the capture mechanism. Once this is done, we can let the production users back on the system. From that point on, all changes that they make to our source tables in this queue will be captured.

The backup taken will be used to do our initial load. This backup is restored into another CommericialWare environment.

Run initial load

Using your modified production initial load script, your data delivery team along with the Taurus support resource will load each source data into the production Maps for CommercialWare Data Foundation environment. Your data delivery team and Taurus will review the results of each of the load scripts to ensure that they completed successfully. After all the source data has been loaded, the automated reconciliation routines will be run to ensure that the production Maps for CommercialWare environment is in sync BEFORE proceeding to the processing the incremental changes.

Run the incremental

If the two environments are in sync, your data

data feeds

delivery team and Taurus will run the incremental data movement routine and validate the results. If the script appears to have completed successfully, they will setup the automatic scheduling for the incremental routines.

Your data delivery team will review data delivery for each queue from time to time to ensure that your business is receiving accurate and up-to-date information.

Data Delivery Summary

Data delivery is done by queue. Each queue is independent of all other queues and may be implemented in any order. You do not have implement all the queues and can choose only the data that is useful for your company. In fact, many customers choose to implement in phases. They may pick a small subset of data required for a web feed and implement that as their first phase of data delivery and then implement more queues and tables to support marketing analysis next. Because of the flexibility of tools and how the implementation can be organized, you can choose what suits your company's resources and requirements.

If you are implementing Maps for CommercialWare to provide data for use by the Measures for CommercialWare, only ## target tables are required by the current release of Measures for CommercialWare. You may wish to implement just the tables to make the analyses available through Measures for CommercialWare available sooner rather than later and come back deliver more data later.

At the end of the priority meeting when scope is set, the Taurus project manager will provide you with an estimation sheet which should provide with the amount of time it should take to implement based on our experience with other

customers. Obviously, not every customer and their resources are the same, so your time may vary. However some guidelines for open systems are 1.5 per target table.

Once data delivery is complete for the queues that are part of your scope, this phase of the implementation is complete. The result of this work is clean, easily understandable data in the Maps for CommercialWare data foundation which is updated with changes as they happen in the CommericialWare environment.

Releasing data to business users

Once the production Maps for CommercialWare Data Foundation has enough data to meet your business needs, the data is ready to be released to your business users. What tools you choose to access the data is your business' choice. Access can be provided via `Microsoft Access`, `Microsoft Excel`, database tools or through `Hyperion` and the Measures for CommercialWare.

If you choose to use `Hyperion`, you can either provide access via the `Hyperion` web server or through the desktop client. Most clients elect to do both.

Installation of the `Hyperion Server`, if this is the access method your business chooses, will need to be complete prior to releasing the data to the business users. Installation assistance is now included in the price of the Measures for CommercialWare and is done remotely on your machines by a Taurus resource while being shadowed by your system administrator. Most of the time, this task takes a couple of hours but certainly no longer than eight hours.

For the `Hyperion` web server implementation, a repository is created to "hold" published reports, meta data, and user roles/security information. For supported repository databases, see Hyperion's site or ask your sales representative. An administrator will need to be designated and trained to manage the `Hyperion` environment. Training for administrator tasks is available through `Oracle`.

Preparing the data for access by business users

Whether you choose to use the Measures for CommercialWare or provide access to the data using a different method, you will want to make the data more usable for the users. In the target

tables, there are:

- original columns and columns which are used to keep track of how the transaction came to be in the Maps for CommercialWare structure
- table names used for Maps for CommercialWare describe the origin of the data as it relates to CommericialWare

but these may be not familiar terms or names to your business users. You can make the data usable for both types of users: technical users and business user by adding views to the database to overlay an understanding and names that are more appropriate for business users. If you are a Measures for CommercialWare user, these steps are covered in the *Measures For CommercialWare Quick Start Guide.*

In addition to creating a "business user" friendly environment, you will also want to add indexes which match the types of inquiries that your users plan to run to make access quick. If you are a Measures for CommercialWare user, these steps are covered in the *Measures For CommercialWare Quick Start Guide.*

Many queries that users might develop use dates, fiscal periods, seasons, or workdays to help subset the data to look at just the timeframe that applies to the analysis. Adding a period table to Maps for CommercialWare Data Foundation makes these types of queries users. If you are a Measures For CommercialWare user, we provide the `PERIOD` table and instructions on how to customize it to your company's business needs in the *Measures For CommercialWare Quick Start Guide.*

Measures For   The Measures for CommercialWare provides a set

CommericalWare Users Only

of pre-defined queries and analysis which answer business questions for various functional areas. The product is always expanding as we add dashboards and queries based on customer input. Along with the purchase of the Measures For CommercialWare comes a set of `Hyperion` licenses for your organization to use. At the time of sale or shortly after the sale, `Hyperion` will have provided you with license codes and instructions on how to download the software.

Once your data is delivered to the Maps for CommercialWare Data Foundation, the *Measures For CommercialWare Quick Start Guide* and the current release of the Measures for CommercialWare will be delivered to you. Using the queries is as simple as:

1. Installing `Hyperion`
2. Establishing an `ODBC` data source to connect your Maps for CommercialWare Data Foundation
3. Create a connection file which all users can use
4. Connecting the queries to your environment

In addition the queries, Taurus provides a two-day onsite training session which is intended for business users who will be writing their own queries. Through a set of exercises, each focuses on a different set of functional data, e.g. customer data, order data, users are taught how to work with the data model and build their own queries. At the completion of the course, users will be able to build their own queries, charts, pivot tables, and reports. They will understand how to sort, drill up, drill down, and use calculated field in queries. They will have a good understanding of the data model for each of the functional areas covered. Most customers find this adequate for their needs, but if you want to delve deeper a wide range of classroom and

computer based training is available through our partner Oracle.