

**Facilitated Data Modeling**

by Gary Rush, IAF CPF  
MGR Consulting

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**Abstract**

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**Facilitated Data Modeling**

**Duration** 1 Hour

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**Synopsis**

How many of you have business clients beating down your door for you to build them a Data Model? If they aren't beating down your door, why is that? Data Models provide business clients far more insight and information than they do to IT, yet it seems that in many companies, IT is driving the need for and use of Data Models. This needs to change.

People resist Data Modeling because they don't understand why it is important to build models and they don't understand the process.

Much of the reason that business clients aren't beating down your door is that they are intimidated by the complex terminology and rules. Fortunately, these can be easily remedied. We forget that the models must be of the business, by the business, and for the business. Conceptual and logical data modeling is more about grammar and the business. Properly facilitated, building a Conceptual Data Model with your business clients becomes not only a way to document the information a business needs to do its job and the rules it follows in managing its business, but will encourage your business clients to participate in building future models and will encourage them to use the models that they build. Combining your data modeling skills with effective Facilitator skills will make the job of the Data Analyst not only easier, but also more in demand by business clients.

This session is designed to enable "Participant Friendly" conceptual and logical data modeling.

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**Objectives**

Upon completion, the attendees will:

- Develop techniques for building Data Models with business clients.
  - Develop a set of client-friendly terms.
  - Know how facilitation and Facilitator skills increase the effectiveness and acceptance of Data Modeling.
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## **Agenda**

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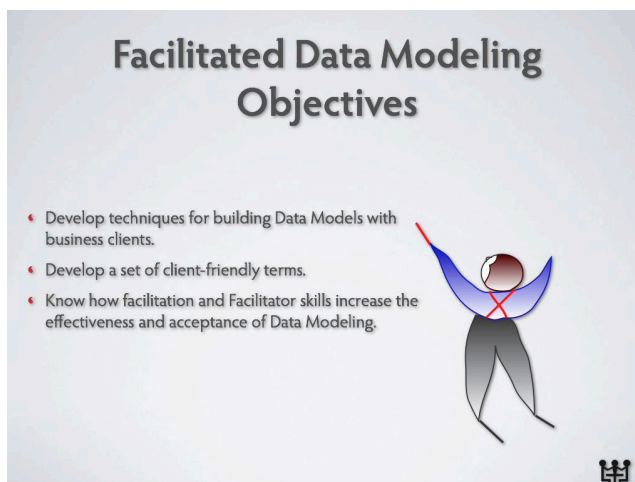
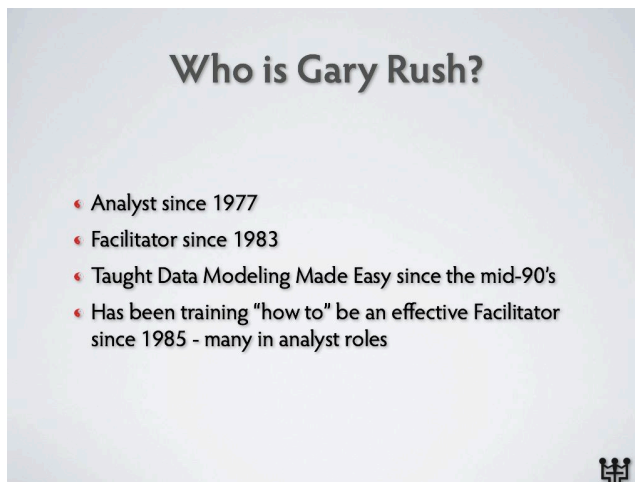
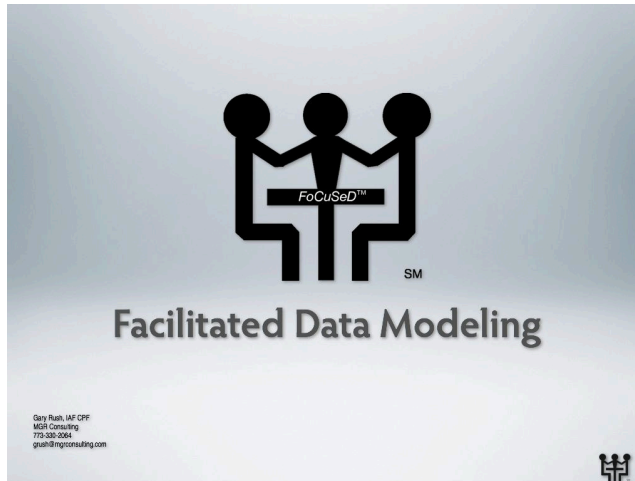
- Introduction**
- A Premise**
- Making it Business Friendly**
- Questions**
- Review and Wrap Up**



Presentation

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Slides






## Presentation

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### Slides

## A Premise

Conceptual and Logical Data Modeling has nothing to do with data bases, computer systems, or technology. It is a shorthand way to understand and document how a business manages itself.




## What is Facilitation?

- "The process of making something easier".
- Guided by a Content-Neutral Facilitator.
- The Participants are respected and Empowered.
- A workshop follows a defined agenda.
- A workshop is convened for a purpose.



## Why do we Care?

- Two Heads are better than One.
- Ideas are lost without a group - people have selective memory.
- Communication problems and power struggles are better managed.
- Decision-making has been pushed to the people in the organization.
- People in organizations are becoming empowered and cannot/will not leave decision-making to one individual.
- The world is becoming smaller.
- It increases quality - fewer mistakes and changes down the road.





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### Slides

## A Facilitator is...

**"A Facilitator is** – a content neutral person who guides the group to consensus using effective processes to enable a group to make effective decisions and accomplish their task while supporting a collaborative and respectful environment that encourages full participation and helps groups overcome barriers to accomplishing their task. The Facilitator is responsible for the Context."


A Facilitator is a Process Expert.



## Data Analysis is...

**"Data Analysis is** the set of tasks, knowledge, and techniques required to identify business needs and determine solutions to business problems. Solutions often include a systems development component, but may also consist of process improvement or organizational change."


A **Data Analyst** is a Process Expert.



## Data Modeling

Data Modeling is a shorthand, concise way to document business rules and policies. As a result, you also understand what needs to be tracked - i.e., what a business needs to keep information about.

Data modeling is about Business - not systems.






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Slides


## Terms

- Entity
- Attribute
- Relationship
- Entity Relationship Diagram



## More Terms

- Optionality, Cardinality
- Associative entity
- "Normalize"

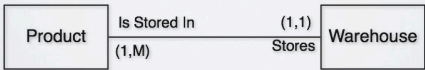


## Why Do We Model?


- It's Clear
- It's Concise
- It's Unambiguous

We store our products in warehouses. Warehouses store one or multiple products. We want to store each product in only one warehouse.

OR



```
graph LR; Product[Product] --- Is_Stored_In[Is Stored In]; Warehouse[Warehouse] --- Stores[Stores]; Is_Stored_In --- Stores; Product --- P_Card["(1,M)"]; Warehouse --- W_Card["(1,1)"];
```





Presentation

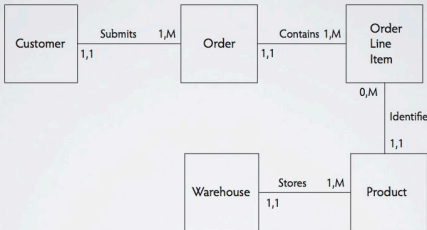
Slides

### Why Model? It's This

We store our products in warehouses. Warehouses store one or multiple products. We want to store each product in only one warehouse. We only keep track of customers who buy products. Orders must come from only one customer. Consortiums are not allowed. Customers can order more than one product on a given order...




### Or This



```
graph LR; Customer[Customer] -- "Submits 1,1 to 1,M" --> Order[Order]; Order -- "Contains 1,1 to 1,M" --> OrderLineItem[Order Line Item]; Warehouse[Warehouse] -- "Stores 1,1 to 1,M" --> Product[Product]; OrderLineItem -- "Identifies 0,M to 1,1" --> Product;
```

What are the "Persons, Places, Things, or Events" about which you keep information?  
How are they Related?



### Making it Business Friendly






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## Making it Business Friendly - Guidelines

- Use Client-Friendly terminology - Keep It Simple (KIS).
- Follow a clear and consistent process.
- Be absolutely consistent and precise in the way you ask the questions.
- Keep it about grammar and business.
- Get the client involved.




## Begin with Terminology

"Metho-jargon"	"Client-Friendly" Terminology
Entity	Thing
Attribute	Thingette
Relationship	Relationship
Entity Relationship Diagram	Model of your Information
Optionality	Minimum
Cardinality	Maximum
Associative Entity	Thing
Normalize	"What the...?"



## Data Model

- Introduction
- Define the Purpose of the Business
- Define the *Things* in the Business
- How do they relate?
- What describes each *Thing*?
- Review Business Policies
- Review & Wrap Up





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### Business Purpose

In 25 words or less, what is the purpose of this business, activity, or process?

If you had to explain this in 5 minutes to someone who knew nothing about it, what would you say?

The Purpose is to...

So that...




### Thing

A **Thing** is a Person, Place, Thing, or Event about which we keep information.

Examples are:

- **Person** - Customer
- **Place** - Warehouse
- **Thing** - Product
- **Event** - Order



### Thing

Do you keep more than one piece of information **about each Thing**?

**If "Yes"**

Is the information unique to this **Thing**? Or is this **Thing** an example of something else?

"Joe's Store" is an example of a Customer.

"Grocery Store" is a type of Customer.


"Customer" is the **Thing**.

**If "No"**

What does it describe?

"Customer Name" describes Customer.

"Customer" is the **Thing**.





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### Slides

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**Conclusion**

- Follow the guidelines
- Always involve the client
- Keep it of the business, by the business, and for the business
- Always make it easier - facilitate Data Modeling



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**About Gary Rush, IAF CPF | MGR Consulting**

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*We have been in business since February 1985 when Gary founded MG Rush Systems, Inc. Gary ceased operations of MG Rush Systems, Inc. in June 2004 to pursue his dream of becoming a restaurateur. In June 2005, after a one-year absence, Gary returned re-instating his company MG Rush Systems, Inc. and re-naming it MGR Consulting, Inc. Millie (M) and Gary (G) Rush are now MGR Consulting.*

**Gary Rush, IAF CPF**

**Gary Rush, IAF Certified™ Professional Facilitator (CPF)**, Founder and President of **MGR Consulting** has been leadership training since 1972 when he entered the U.S. Naval Academy. He has managed projects since 1980, been facilitating since 1983, and training since 1985. *He is a recognized leader in the field of facilitation, Facilitator training and continues to be the leading edge in the industry by continuing as a practicing Facilitator.*

As a Facilitator, Gary facilitates many types of workshops. He improves client business performance through effective application of exceptional facilitation processes. He is uniquely qualified to assist you in understanding, managing and implementing facilitated workshops supporting your methodology in your organization. He is an expert at engaging participants and guiding them to consensus. *His primary job is to get a group of individuals to form as a team, learn to communicate, and achieve a goal or accomplish a task.*



**As a Trainer**, Gary is amongst the most successful and influential Facilitator Trainers in the world. He teaches *The FoCuSeD™ Facilitator Academy*, *FoCuSeD™ Business Facilitator*, and *FoCuSeD™ On...* He teaches specific "how to" with an understanding of the "why" to perform as an effective Facilitator; he provides detailed facilitator and process tools and, as an *IAF CPF Assessor*, he covers the *IAF Core Facilitator Competencies*. *His alumni are amongst the most successful and influential leaders. They often tell us how much Gary has changed their lives.*

In 1985, Gary created *FAST*. In 2007, Gary created *FoCuSeD™* – a revolution from *FAST*. *It is the most complete, most comprehensive, and most effective facilitation class available, providing detailed training on the concepts of **Holistic Facilitation**.*

Gary has implemented his facilitation technique in some of the largest companies and government agencies. His clients are many of the Fortune 500 companies. *His facilitation technique is used widely around the world.*

Gary has written numerous "how to" books, including *The FoCuSeD™ Facilitator Guide* – a comprehensive reference manual. *He shares his step-by-step process so that students can replicate his practices.*

Gary updates *MGR Consulting's* materials periodically and delivers *The FoCuSeD™ Advanced Class*. *He incorporates new ideas, tools, and concepts in facilitation.*

In 2006, the *International Association of Facilitators (IAF)* awarded Gary the *IAF Certified™ Professional Facilitator (CPF)* designation. In 2007, he became an *IAF CPF Assessor* and from April 2008 until January 2011, he was *Chair of the International Association of Facilitators (IAF)*.

Besides his family, Gary's passions are cooking and making a difference in the world by encouraging collaboration through facilitation, leadership, and diversity. *He envisions a collaborative society that respects individualism and embraces diversity.*

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