

The Grumpy Old IT Guy Master Data Framework (GITG-MDF™)

A Practical Framework for Implementing Trusted Master Data Across the Enterprise

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Executive Summary

Data has become one of the organization's most valuable business assets. Yet in many enterprises, critical business entities such as customers, products, suppliers, employees, locations, and assets are stored across numerous applications, each maintaining its own version of the truth. As these systems evolve independently, duplicate records, conflicting values, inconsistent identifiers, and varying business definitions inevitably emerge.

Master Data Management (MDM) addresses this challenge by establishing a single, trusted source of authoritative business data that can be shared consistently throughout the enterprise.

The **Grumpy Old IT Guy Master Data Framework (GITG-MDF™)** provides a practical, structured methodology for designing, implementing, governing, and maintaining enterprise master data. Built around proven data management principles and optimized for Microsoft SQL Server environments, the framework helps organizations create trusted master data that supports analytics, operational systems, regulatory compliance, and artificial intelligence initiatives.

Rather than viewing master data as merely another database, the GITG-MDF™ treats master data as a governed corporate asset requiring ownership, stewardship, quality controls, lifecycle management, and continuous improvement.

What is the GITG-MDF™?

The **Grumpy Old IT Guy Master Data Framework (GITG-MDF™)** is a comprehensive methodology that guides organizations through the complete lifecycle of enterprise master data.

The framework defines how organizations should:

- Identify master data domains
- Establish authoritative data sources
- Define business ownership
- Create standardized data models
- Manage golden records
- Synchronize enterprise systems
- Govern data changes
- Measure master data quality
- Continuously improve trusted enterprise information

The framework combines best practices from:

- Master Data Management (MDM)
- Data Governance
- Data Quality
- Metadata Management
- Enterprise Architecture
- SQL Server technologies
- Modern cloud data platforms

Why Master Data Matters

Nearly every business process depends upon reliable master data.

Examples include:

- Customer onboarding
- Sales and marketing
- Supply chain management
- Financial reporting
- Human Resources
- Regulatory compliance
- Business intelligence
- Machine Learning
- Artificial Intelligence

Without trusted master data:

- Duplicate customers increase costs.
- Products become inconsistent.
- Suppliers are entered multiple times.
- Reports disagree.
- Analytics become unreliable.
- AI models learn from poor-quality information.

As the Grumpy Old IT Guy likes to remind people:

"Applications own transactions. The business owns master data."

Core Principles of the GITG-MDF™

The framework is built upon several guiding principles.

1. Master Data Represents Business Truth

Master data defines the core business entities used throughout the organization.

Examples include:

- Customer
- Product
- Supplier
- Employee
- Vendor
- Location
- Asset
- Organization
- Material
- Account

2. Every Master Domain Has Ownership

Each master data domain must have:

- Executive sponsor
- Business owner
- Data steward
- Technical owner

Ownership ensures accountability.

3. One Golden Record

Multiple systems may contain information about the same customer or product.

The framework promotes creation of a single **Golden Record** that becomes the authoritative enterprise representation.

4. Governance Before Technology

Technology alone cannot create trusted master data.

Business policies determine:

- Who owns data
- Who approves changes
- Which system is authoritative
- How conflicts are resolved

Technology simply automates those decisions.

5. Continuous Improvement

Master data is never "finished."

The framework includes:

- Monitoring
- Stewardship
- Quality measurement
- Policy refinement
- Continuous synchronization

The Six Phases of the GITG-MDF™

Phase 1 — Discovery and Assessment

Objectives

- Inventory enterprise systems
- Identify candidate master domains
- Analyze duplicates
- Assess data quality
- Evaluate governance maturity

Deliverables

- Domain inventory
- System inventory
- Current-state assessment
- Data quality scorecards
- Gap analysis

Phase 2 — Domain Definition

Objectives

Define enterprise master domains including:

- Customer
 - Product
 - Supplier
 - Employee
 - Vendor
 - Asset
 - Reference Data

Activities include:

- Business definitions
- Attribute standardization
- Identifier strategy
- Hierarchies
- Relationships

Deliverables

- Domain models
- Business glossary
- Data dictionary
- Naming standards

Phase 3 — Golden Record Design

Objectives

Create authoritative enterprise records.

Activities

- Source system prioritization
- Survivorship rules
- Duplicate identification
- Matching policies
- Merge strategies
- Version management

Deliverables

- Golden Record model
- Survivorship rules
- Matching rules
- Source precedence matrix

Phase 4 — Integration and Synchronization

Objectives

Integrate master data across the enterprise.

Activities

- ETL development
- APIs
- Data synchronization
- Change data capture
- Event-driven updates

Technologies may include

- SQL Server
- SSIS
- APIs
- Message queues
- Fabric pipelines

Deliverables

- Integration architecture
- Synchronization workflows
- Data mappings

Phase 5 — Governance and Stewardship

Objectives

Protect master data quality.

Activities

- Steward review
- Exception handling
- Change approval
- Version control
- Audit logging
- Security

Deliverables

- Stewardship workflows
- Governance policies
- Approval processes

Phase 6 — Monitoring and Continuous Improvement

Objectives

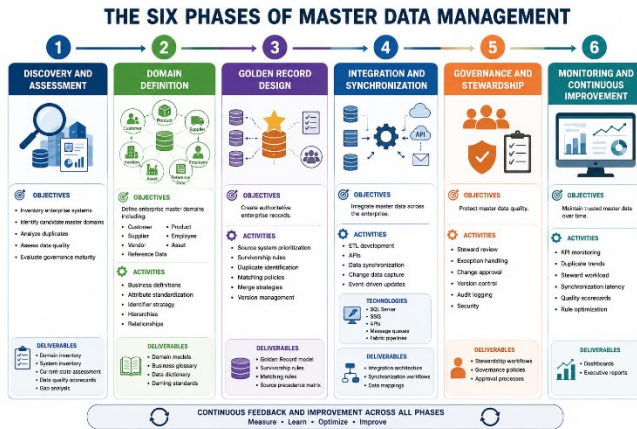
Maintain trusted master data over time.

Activities

- KPI monitoring
- Duplicate trends
- Steward workload
- Synchronization latency
- Quality scorecards
- Rule optimization

Deliverables

- Dashboards
- Executive reports
- Improvement roadmap



The Six Phases of Master Data Management

Framework Components

The GITG-MDF™ consists of several integrated components.

Component	Purpose
Master Data Domains	Defines enterprise entities
Business Glossary	Standard business definitions
Metadata Repository	Technical definitions
Data Quality Rules	Validate master records
Matching Engine	Detect duplicates
Survivorship Engine	Build Golden Records
Stewardship Workflow	Manage approvals
Governance Policies	Control ownership
Monitoring Dashboard	Measure performance

Typical Master Data Domains

Most organizations manage some combination of the following:

- Customer
- Product
- Supplier
- Vendor
- Employee
- Location
- Organization
- Asset
- Equipment
- Material
- Financial Account
- Cost Center
- Contract
- Project

Each domain should follow the same governance lifecycle.

Recommended SQL Server Architecture

A SQL Server implementation may include:

- Operational source systems
- Staging databases
- SQL Server Integration Services (SSIS)
- Data profiling processes
- Data cleansing processes
- Record matching engine
- Golden Record repository

- Master Data Services (where available)
- Reference Data repository
- Operational Data Store
- Data Warehouse
- Reporting layer
- Power BI dashboards

Although **Master Data Services (MDS)** has historically provided master data capabilities within SQL Server, modern implementations may instead use custom SQL Server solutions, Microsoft Fabric, Azure services, or other enterprise MDM platforms while following the same governance principles.

Roles Within the Framework

Successful master data programs require collaboration.

Typical roles include:

Role	Responsibility
Executive Sponsor	Strategic direction
Data Governance Council	Policy approval
Business Owner	Domain ownership
Data Steward	Data quality
Data Architect	Data models
Database Administrator	SQL Server platform
ETL Developer	Integration
Application Owner	Source systems
Business Analyst	Requirements
Security Administrator	Access control

Key Performance Indicators

Organizations should continuously monitor:

- Duplicate record rate
- Golden Record completeness
- Steward review backlog
- Data synchronization success rate
- Matching accuracy
- Merge accuracy
- Survivorship effectiveness
- Attribute completeness
- Validation error rate
- Master data freshness
- User satisfaction
- Business rule compliance

Benefits of the GITG-MDF™

Organizations implementing the framework typically achieve:

- Trusted enterprise master data
- Reduced duplicate records
- Consistent reporting
- Better analytics
- Improved regulatory compliance
- Faster application integration
- Increased operational efficiency
- Better customer experiences
- Higher quality AI training data
- Reduced maintenance costs

Relationship to Other GITG™ Frameworks

The GITG-MDF™ complements the broader Grumpy Old IT Guy data management methodology.

- **GITG-DQF™** establishes enterprise data quality practices.
- **GITG-DCF™** cleanses and standardizes data before it becomes master data.
- **GITG-CDSF™** standardizes customer information for consistent master records.
- **GITG-RMF™** identifies and resolves duplicate entities.
- **GITG-MMF™** monitors matching performance over time.
- **GITG-MDF™** governs and maintains the authoritative enterprise master data that results from these processes.

Together, these frameworks provide an end-to-end approach to building trusted, governed, and high-quality enterprise information assets.

The Grumpy Old IT Guy Rule

"Master data isn't just another table in the database. It's the business's shared definition of reality. If every system has its own version of the truth, none of them truly has the truth."

Conclusion

Master Data Management is far more than a technology initiative; it is a business discipline that establishes a common, trusted foundation for enterprise information. The **Grumpy Old IT Guy Master Data Framework (GITG-MDF™)** provides a practical roadmap for identifying authoritative data, creating Golden Records, governing change, and maintaining consistency across operational and analytical systems.

By combining governance, stewardship, data quality, integration, and continuous monitoring, organizations can ensure that critical business entities remain accurate, consistent, and trusted throughout their lifecycle. Whether implemented using SQL Server, Microsoft Fabric, cloud-native services, or other enterprise platforms, the GITG-MDF™ delivers a repeatable methodology that strengthens decision-making, improves operational efficiency, and provides reliable master data for analytics, reporting, and AI-driven initiatives.

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