TradeMaster Database Plan

#### Andrew Yeager

# Schema Plan

The Database shall be mapped into a schema to provide a sense of extra separation between the various data pieces. The Schema shall start with this….

#### DBO

1. Application settings
2. Application wide lookup tables.

#### Company

Tables related to the company to whom the application is licensed. Tables for the users and other things related to the specific application uses for the Company

#### Materials

Tables related to the materials the company uses to produce their product (see Product schema). Houses inventory tables, manufacturer tables, warehouse tables, etc…

#### Employee

Tables that contain data related to the employees of the company the application is licensed to.

#### Customer

Tables containing information relating to the customers of the company the application I s licensed to.

#### Product

Tables containing information pertaining to the products the company produces.

#### Job

Tables containing data that relates to the “jobs” which the company works on.

#### Billing

Plan for Service Company Database to handle Scheduling and Employee Management. All table names and Field names etc contain spaces that should be removed for setup and database creation.

|  |  |  |
| --- | --- | --- |
| Table Name | | |
| *Field Name* | *Data type* | *Constraints, indexes, foreign keys, etc…* |

# Schema = DBO

|  |  |  |
| --- | --- | --- |
| Phone Type LKP | | |
| Phone Type ID | Int, PK, identity, nn |  |
| Name | Varchar(20), nn |  |
| Active | Bit |  |
| IsPersonalType | Bit |  |
| IsBusinessType | Bit |  |

|  |  |  |
| --- | --- | --- |
| Address Type LKP | | |
| Address Type ID | Int, PK, identity, nn |  |
| Name | Varchar(20), nn |  |
| Active | Bit, null |  |
| IsPersonalType | Bit, nn |  |
| IsBusinessType | Bit, nn |  |

|  |  |  |
| --- | --- | --- |
| Email Type LKP | | |
| Email Type ID | Int, PK, identity, nn |  |
| Name | Varchar(20), nn |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Relationship LKP | | |
| Relationship ID | Int, PK, identity, nn |  |
| Name | Varchar(20), nn |  |
| Active | Bit, null |  |
| IsPersonalType | Bit, nn |  |
| IsBusinessType | Bit, nn |  |

# Schema = Company

|  |  |  |
| --- | --- | --- |
| Company Info | | |
| Company ID | Int, PK, nn |  |
| LegalName | Varchar(50), null |  |
| DBAName | Varchar(50), null |  |
| Logo | Varbinary(max), null |  |

|  |  |  |
| --- | --- | --- |
| Company Branch | | |
| Co Branch ID | Int, PK, nn |  |
| Company ID | Int, null | FK (Company Info) |
| Branch Name | Varchar(50), nn |  |
| Branch Type | Varchar(25), null |  |
| Open Date | Date null |  |
| Close Date | Date null |  |

|  |  |  |
| --- | --- | --- |
| Company Department | | |
| Department ID | Int, PK, nm |  |
| Branch ID | Int, PK, nn |  |
| Company ID | Int, null | FK (Company Info) |
| Department Name | Varchar(50), nn |  |
|  |  |  |
| Branch Type | Varchar(25), null |  |
| Close Date | Date |  |

|  |  |  |
| --- | --- | --- |
| Company Address | | |
| Co Address ID | Int, Identity key, nn |  |
| Co Branch ID | Int, nn | FK (branch info) |
| Address Type ID | Int, null | FK (Address Type ID) |
| Address | Varchar(50), null |  |
| Address 2 | Varchar(50), null |  |
| City | Varchar(25), null |  |
| State | Varchar(25), null |  |
| Zip | Varchar(12), null |  |
| Active | Bit |  |

|  |  |  |
| --- | --- | --- |
| Company Phone | | |
| Co Phone ID | Int, Identity key, nn |  |
| Co Branch ID | Int, nn | FK (branch info) |
| Phone Type ID | Int, null | FK (PhoneType lookup) |
| Phone Number | Varchar(12), null |  |
| Active | Bit |  |

|  |  |  |
| --- | --- | --- |
| Services (lookup) | | |
| Service ID | Int, Identity, nn |  |
| Name | Varchar(50), nn |  |
| Description | Varchar(150), null |  |

|  |  |  |
| --- | --- | --- |
| Services Offered | | |
| Row ID | Int, Identity key, nn |  |
| Branch ID | Int, nn | FK (branch info) |
| Service ID | Varchar(25), null | FK (Services) |
| Start Date | Date, null |  |
| End Date | Date, null |  |

# Schema = Customer

|  |  |  |
| --- | --- | --- |
| Customer Info | | |
| Customer ID | Int, PK, nn |  |
| Business Name | Varchar(40), null |  |
| First Name | Varchar(25), null |  |
| Last Name | Varchar(30), null |  |
| Middle Name | Varchar(25), null |  |
| Customer Type | Int, null | FK (Customer Type Lkp) |
| Row Constraint : Must have value for either Business Name or First Name and Last Name | | |

|  |  |  |
| --- | --- | --- |
| Customer Type (lookup) | | |
| Type ID | Int, Identity, nn |  |
| Name | Varchar(40), nn |  |
| Description | Varchar(120), null |  |

|  |  |  |
| --- | --- | --- |
| Customer Address | | |
| Cu Address ID | Int, Identity, nn |  |
| Customer ID | Int, nn |  |
| Cu Branch ID | Int, null |  |
| Address Type ID | Int, null |  |
| Address | Varchar(70), null |  |
| Address 2 | Varchar(30), null |  |
| City | Varchar(30), null |  |
| State | Char(2), null |  |
| Zip | Varchar(12), null |  |
| Notes | Varchar(Max), null |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Customer Phone | | |
| Cu Phone ID | Int, Identity, nn |  |
| Customer ID | Int, nn |  |
| Cu Branch ID | Int, null |  |
| Cu Contact ID | Int, null | FK (Customer Person) |
| Phone Type ID | Int, null |  |
| Phone Number | Varchar(15), nn |  |
| Notes | Varchar(Max), null |  |
| Active | Bit, null |  |

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| --- | --- | --- |
| Customer Contact | | |
| Cu Contact ID | Int, Identity, nn |  |
| Customer ID | Int, null |  |
| Cu Branch ID | Int, null |  |
| First Name | Varchar(25), nn |  |
| Last Name | Varchar(30), nn |  |
| Title | Varchar(30), null |  |
| Notes | Varchar(Max), null |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Customer Email | | |
| Cu Email ID | Int, Identity, nn |  |
| Customer ID | Int, null |  |
| Cu Contact ID | Int, null | FK (CustomerContact.CuContactID) |
| Email Type ID | Int, null |  |
| Email | Varchar(15), nn |  |
| Notes | Varchar(Max), null |  |
| Active | Bit, null |  |

# Schema = Employee

|  |  |  |
| --- | --- | --- |
| Employee Info | | |
| Employee ID | Int, PK, nn |  |
| First Name | Varchar(25), null |  |
| Last Name | Varchar(30), null |  |
| Middle Name | Varchar(25), null |  |
| Salutation | Varchar(20), null |  |
| Suffix | Varchar(15), null |  |
| SocialSecurity | Char(9), not null |  |
| BirthDate | Date, not null |  |
| StartDate |  |  |
| TerminationDate |  |  |
| TerminationType |  |  |
| RehireEligible |  |  |
| Employee Photo | Varbinary(max), null |  |

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| --- | --- | --- |
| Employee Address | | |
| Emp Address ID | Int, Identity, nn |  |
| Emp ID | Int, nn |  |
| Address Type ID | Int, null |  |
| Address | Varchar(70), null |  |
| Address 2 | Varchar(30), null |  |
| City | Varchar(30), null |  |
| State | Char(2), null |  |
| Zipcode | Varchar(12), null |  |
| Notes | Varchar(Max), null |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Employee Phone | | |
| Emp Phone ID | Int, Identity, nn |  |
| Employee ID | Int, nn |  |
| Phone Type ID | Int, null |  |
| Phone Number | Varchar(15), nn |  |
| Notes | Varchar(Max), null |  |
| Primary | Bit, null |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Employee Email | | |
| Emp Email ID | Int, Identity, nn |  |
| Employee ID | Int, nn |  |
| Email Type ID | Int, null |  |
| Email | Varchar(40), nn |  |
| Notes | Varchar(Max), null |  |
| Default | Bit, null |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Position lkp | | |
| Position ID | Int, Identity, nn |  |
| Title | Varchar(30), not null |  |
| Short Description | Varchar(140), null |  |
| Job Description | Varbinary(max), null |  |
| Active | Bit, null |  |

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| --- | --- | --- |
| Pay And Position | | |
| Row ID | Int, Identity, nn |  |
| Employee ID | Int, nn |  |
| Start Date | Date, nn |  |
| End Date | Date, null |  |
| Position ID | Int, null | FK (Employee.PositionLkp.PositionID) |
| Reports To | Int, null | FK (Employee.EmployeeInfo . Employee ID) |
| Pay Type | Int, null |  |
| Pay Frequency | Varchar(25), null |  |
| Pay Amount | Small money, null |  |

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| --- | --- | --- |
| Licenses Certs | | |
| Row ID | Int, Identity, nn |  |
| Employee ID | Int, nn | FK (Employee.EmployeeInfo.EmployeeID) |
| Cert ID | Int, nn | FK (Employee.LicensesCertsLkp.CertID) |
| Emp Cert Num | Varchar(30), null |  |
| Issue Date | Date, null |  |
| Expire Date | Date, null |  |

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| --- | --- | --- |
| Licenses Certs Lkp | | |
| Cert ID | Int, Identity, nn |  |
| Name | Varchar(30), nn |  |
| Issue Authority | Varchar(70), null |  |
| Description | Varchar(120), null |  |
| Active | Bit, null |  |

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| --- | --- | --- |
| Emergency Contact | | |
| Row ID | Int, Identity, nn |  |
| Employee ID | Int, nn | FK (Employee.EmployeeInfo.EmployeeID) |
| First Name | VarChar(25), null |  |
| Last Name | VarChar(30), null |  |
| RelationshipID | Int, null | FK (dbo.RelationshipLkp.RelationshipID) |
| Primary Phone | Varchar(20), null |  |
| Secondary Phone | Varchar(20), null |  |
| Active | Bit, null |  |

# Schema = Jobs

|  |  |  |
| --- | --- | --- |
| Job Info | | |
| Job ID | Int, Identity, nn |  |
| Job Name | Varchar(40), null |  |
| Customer ID | Int, nn, FK |  |
| JobTypeID | Int, nn, FK |  |
| Address | Varchar(40) null |  |
| Address 2 | VarChar(40)null |  |
| City | Varchar(20), null |  |
| State | Char(2), null |  |
| Zip | Char(5), null |  |
| County | Varchar(30), null |  |
| Subdivision ID | Int, null, FK |  |
| Legal Lot | Varchar(25), null |  |
| Permit Auth ID | Int, null, FK |  |
| Permit Number | Varchar(30), null |  |

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| --- | --- | --- |
| Job Details | | |
| RowID | Int, Identity, nn |  |
| JobID | Int, FK, NN |  |
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| --- | --- | --- |
| Job Equipment | | |
| RowID | Int, Identity, nn |  |
| JobID | Int, FK, nn |  |
| EquipmentID | Int, nn, FK |  |
| Location | Int, nn, FK |  |
| SerialNumber | Varchar(40) null |  |
| WorkOrderID | VarChar(40)null |  |
| Notes | Varchar(20), null |  |

|  |  |  |
| --- | --- | --- |
| Job Type Lkp | | |
| Job Type ID | Int, Identity, nn |  |
| Name | Varchar(30), nn |  |
| Description | Varchar(120), null |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Subdivision Lkp | | |
| Subdivision ID | Int, Identity, nn |  |
| Name | Varchar(30), nn |  |
| Description | Varchar(120), null |  |
| Permit Authority ID | Int, nn |  |
| Active | Bit, null |  |

|  |  |  |
| --- | --- | --- |
| Permit Authority Lkp | | |
| Permit Authority ID | Int, Identity,PK, nn |  |
| Name | Varchar(30), nn |  |
| AuthType | Varchar(30), null | City, Water provider, County, Federal, State |
| Active | Bit, null |  |

# Schema = FlatRate

|  |  |  |
| --- | --- | --- |
| Tasks | | |
| Task ID | Int, Identity, nn |  |
| Group ID | Int, fk, null |  |
| Name | Varchar(30), nn |  |
| Invoice Description | Varchar(120), null |  |
| Extended Description | Varchar(500), null |  |
| Active | Bit, null |  |
| Create Date | DateTime, nn |  |
| Last Updated | DateTime, nn |  |
| Use Material Hours | bit, null | Boolean use material hours |
| Labor Hours | Int, null | This stores data for an overridden labor hours,  Used to “fix” the Labor hours associated with a task. |

|  |  |  |
| --- | --- | --- |
| Task Group | | |
| Group ID | Int Identity, nn |  |
| Name | Varchar(40), nn |  |
| Description | Varchar(240) null |  |
| Notes | Varchar(500) null |  |

|  |  |  |
| --- | --- | --- |
| Task Materials | | |
| Row ID | Int Identity, nn |  |
| Task ID | Int, fk, nn |  |
| Part ID | int,fk, nn |  |
| Qty | Int, null |  |

# Schema = Materials

|  |  |  |
| --- | --- | --- |
| Lkp Manufacturers | | |
| Manufacturer ID | Int Identity, nn |  |
| Name | Varchar(40), nn |  |

|  |  |  |
| --- | --- | --- |
| Lkp Material Atrribute | | |
| RowID | Int Identity, nn |  |
| Name | Varchar(40), nn |  |

|  |  |  |
| --- | --- | --- |
| Materials | | |
| Part ID | Int Identity, nn |  |
| Our Part Num | Varchar(25), nn |  |
| Manufacturer ID | Int, nn |  |
| Man Part Num | Varchar(25), null |  |
| Invoice Description | Varchar(40), nn |  |
| Extended Description | Varchar(120), null |  |
| Notes | text, null |  |
| UPC | Char(12), null |  |
| Last Updated | Timestamp, nn |  |

|  |  |  |
| --- | --- | --- |
| Material Attributes | | |
| Part ID | Int PK, FK, nn |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| Material Pricing | | |
| Part ID | Int PK, FK, nn |  |
| Retail Price | money, null |  |
| Retail Discount | Decimal(1,4) null | This is a percent number where 1.0 = 100% |
| Override Sale Price | money, null |  |

Materials shall be classified according to specific attributes such as….

* Kind – pipe, fitting, fixture, fastener, install, repair
  + Material Class
    - Type
      * Sub type
    - Class
      * Sub class
    - Size
      * Size 1
      * Size 2
      * Size 3
      * Size 4