



P2000AE

Security Management System

MIS Interface Configuration

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MIS INTERFACE CONFIGURATION

The MIS Interface provides a means for the P2000AE system to receive entity information, including access badge identifier and associated access profile data, and queries from an external source such as a Human Resource system. Using our MIS Interface Service and an external ODBC-based program, you can add, modify, or delete entities and their identifiers in the P2000AE system, or you can query entity information using “wildcards.”

NOTE

“P2000AE” is also referred to as “P2000” throughout this manual.

NOTE

The screen captures shown in this manual may differ slightly, depending on the software version you are using.

This program is designed for use with P2000 version 4.0 and higher (for the Windows® 2003 Server platform). The MIS Interface that resides on the P2000 Server is called P2000 MIS Interface Service, which is a Windows service designed to import and export data.

This document provides the information you need to create your ODBC-based program and use the MIS commands.

NOTE

Do not attempt to configure the MIS interface unless you are a qualified database programmer. MIS is a low-level interface that requires programming to implement.

Instructions are presented in the following sections:

- **System Requirements**
- **Input and Output Tables**
- **MIS Commands**
- **Table Definitions**
- **Partitioned Systems**



APPLICATION NOTE

MIS Interface Application: The MIS Interface is intended ONLY as a tool to allow an external system to Export Images and Add, Update, Delete or Query the P2000 entity database. It is not intended to keep the P2000 database and the external data in absolute "sync." Records deleted from within P2000 are not automatically deleted from the external database. We recommend that specific procedures be established to manage your use of the MIS Interface.

SYSTEM REQUIREMENTS

CPU speed, memory, and disk requirements are determined by the size of the external system application. The external system will need a network connection to the P2000 Server. The MIS Interface tables are available to you if you have purchased this option. No separate installation media is required.

The following elements are external to the P2000 software. They must be in place, or the MIS Interface will not be able to receive data or respond to queries:

- Network connection to link the external system with the P2000 Server.
- MIS Interface (purchased separately from Johnson Controls, no separate installation media is required).
- ODBC 3.0 or later (installed in the external system).
- Microsoft® SQL Server ODBC driver (already installed in the P2000 system).
- An ODBC-based program that communicates between the external data source and MIS Input/Output tables.

NOTE

The external system can be any ODBC-capable application, such as Microsoft Excel or Access. This system is supplied by the user and is not included in the P2000 software.

Once the above components are in place, the following elements must be set up at the P2000 Server:

- At least one P2000 operator should be a member of the **PEGASYS Administrators** group, as defining UDF fields requires a higher level of DB privileges. This is done by setting up the Windows account of those P2000 operators accordingly.
- The **P2000 MIS Interface Service** must be running using the Service Control application.
- The **MIS** tab in Site Parameters must be configured to select the location where exported badge images will be stored.

For detailed instructions refer to the *P2000AE Software User Manual*.

INPUT AND OUTPUT TABLES

The MIS Interface communicates with the external application via an ODBC connection to receive data and return command and query results through two tables: an Input table and an Output table. These tables are created automatically. The Input table receives data and commands from the external system. The results of the commands issued to P2000 from the Input table are returned to the Output table.

When the external program writes a record into the Input table, the P2000 system reads that record and performs the requested action (Add, Delete, Update, Query, or Export Images). The results of that operation are written to the Output table and the record in the Input table is deleted. The external software should enter a unique Request ID for each record. Results are reported by Record ID and can be reviewed via the external program.

Results can be either “successful” or report an error on a specific Request ID. If multiple records are sent to the Input table, they are processed in the same manner: as a group of records is processed and clears the Input table, the next group is read and processed. (Request IDs remain intact, though records may not necessarily be processed in any particular order.) Records are removed from the Output table by the external system. All successful operations will be logged in the normal P2000 Audit database table.

Character Field Lengths

When adding records to P2000, it is important to keep the fields in the records within the character limits specified in the table definitions. Entries exceeding the character limits will appear truncated in P2000. See “Table Definitions” later in this document for details.

Error Codes

When fields are invalid, or if the table does not find a matching entity Unique ID, the result field in the Output table will report an error. See “Table Definitions” later in this document for definitions.

Identifier Data

The MIS Interface provides limited capability for the external system to assign identifiers to entities or modify access privileges for existing identifiers. The MIS Interface will remove any identifiers assigned to an entity if the entity is deleted through the MIS interface. For further details refer to “Processing Badge and Access Profile Information” on page 6.

MIS COMMANDS

The MIS Interface allows five basic commands: Add, Update, Delete, Query and Export Image.

Add Operation

When the MIS Interface receives a record in the Input table with an **Add** command (Command = 1), the entity will be added to the P2000 entity database. The entity data will be placed into the Output table with a result of SUCCESS (Result = 1). This data will include the entity's Unique_ID that is assigned by the P2000 system.

If any of the fields are invalid, or if an entity exists with the same ID field value, an error will be returned in the Result field. The entity data fields from the Input table record will be copied into the Output table record.

NOTE

Invalid identifier information will prevent the entire record from being processed.

Update Operation

When the MIS Interface receives a record in the Input table with an **Update** command (Command = 2), the P2000 system will query its database for an entity with a matching ID field. If a matching entity is found, all the fields in the record will be placed into the P2000 database record. The entity data will be placed into the Output table with a result of SUCCESS (Result = 1).

If any of the fields are invalid, or if an entity with the same ID field value could not be found, an error will be returned in the Result field. The entity data fields from the Input table record will be copied into the Output table record. If the StartDate or EndDate is changed, the identifiers may become valid or invalid. If so, these changes will be downloaded to all affected panels.

NOTE

*Invalid identifier information will prevent the entire record from being processed. In addition, the **Update** command can also **Add** an identifier.*

NULL Fields

For Update commands, any non-required input fields that are NULL will cause the corresponding value in the P2000 database to retain its existing value. See also Table 3 on page 13.

Delete Operation

When the MIS Interface receives a record in the Input table with a **Delete** command (Command = 3), the P2000 system will query its database for an entity with a matching ID field. If a matching entity is found, the P2000 database record for that entity will be deleted. Any identifiers assigned to that entity will also be deleted. The entity data will be placed into the Output table with a result of SUCCESS (Result = 1).

If any of the fields are invalid, or if an entity with the same ID field value could not be found, an error will be returned in the Result field. The entity data fields from the Input table record will be copied into the Output table record.

If any identifiers were deleted, these changes will be downloaded to all affected panels.

NOTE

It is not possible to delete individual identifiers for an entity.

Query Operation

When the MIS Interface receives a record in the Input table with a **Query** command (Command = 4), the P2000 system will create an SQL query using the non-NULL fields from the First Name, Last Name, and ID fields as the search criteria. A record for each matching entity will be placed into the P2000 database record. The entity data will be placed into the Output table with a result of SUCCESS (Result = 1).

The identifier fields in the MIS Output table will be initialized/filled with the details of one active identifier associated with the entity.

If no entities were found, a single record with all entity data fields set to NULL, will be placed into the Output table with a result of SUCCESS (Result = 1).

Since a Query may produce multiple results, assigning a unique Request_ID to each record in the Input table is recommended (but not required). This will allow records in the Output table to be easily queried or sorted to match the results with the query that generated them.

NOTE

*If the ID field is not specified, both the FirstName and LastName fields must contain search criteria. Both fields accept wild cards: %=String Match
_ =Single Character Match.*

Export Image Operation

When the MIS Interface receives a record in the Input table with an **Export Image** command (Command = 5), the P2000 system will create an SQL query using the non-NULL fields from the Input record as the search criteria. The command will

cause MIS to retrieve the image for the specified entity (using the ID field as the unique entity key) and write the image to a JPEG file. If **PortraitFile** is NULL, the file will be named xxxx.jpg, where xxxx is the entity ID, and this file will be placed in the Image Folder specified in the MIS tab of the Site Parameters application. If the PortraitFile contains a file name, the image will be written to the specified file. The entity data will be placed into the Output table with a result of SUCCESS (Result = 1). See "Query Operation" for details on the provided entity information.

If no entities were found, a single record with all entity data fields set to NULL, will be placed into the Output table with a result of SUCCESS (Result = 1).

Processing Badge and Access Profile Information

The MIS Interface provides the following limited badge processing capabilities:

- If no badge number is provided in the Input table, the MIS Interface Service ignores information provided in the following columns:
 - + Facility Code
 - + Issue Level
 - + Access Profile
 - + Time Zone
- If a badge number is provided:
 - + The facility code uses the first facility code defined in Site Parameters, if no facility code is provided.
 - + The issue level is initialized with 0 if no issue level is provided.
 - + The processing of the entire MIS record is rejected if one of the following conditions is met:
 - + Facility code is unknown in the system.
 - + Badge is currently owned by another entity.
 - + Badge belongs to a different partition than the one in the Input table and is NOT Public.
 - + Issue Level is out of range, (i.e. less than 0 or greater than 255).
 - + Access Profile is invalid for the current partition or unknown in the system.
 - + Time Zone is invalid for the current partition or unknown in the system
- If a least one badge number and Access Profile/Time Zone are provided:
 - + If an existing badge number exists in the database and is associated with an Access Profile, the system modifies the Access Profile information.
 - + If an existing badge number exists in the database and is NOT associated with an Access Profile:
 - + An Access Profile name will be generated. The name will consist of the facility code plus the badge number.
 - + If this Access Profile name already exists for the entity, the Access Profile will be modified.

- + If this Access Profile name does not exist of the entity, the Access Profile will be created with the new name.
- + The existing badge will be associated with the Access Profile.

The above mentioned Access Profile and Timezone checks are only performed if the Access Profile and Timezone are not empty. A record that contains neither an Access Profile nor a Timezone will be processed, however a record that provides only one of the two information will be rejected. Any updates required due to changes in the badge information will trigger the necessary downloads.

Please note that independent of the actual badge partition, the MIS Interface always updates the first access profile/time zone combination.

TABLE DEFINITIONS

Use the Error Codes table to determine the value or meaning of the results returned for invalid records.

Input and Output table field definitions are given in the following tables. Both the Input and Output tables will have columns for each User Defined Fields (UDF) that have been defined in the P2000 system; if a UDF field is added, deleted, or changed in the P2000 system, the Input and Output tables will be changed to reflect the changed UDF.

Error Codes Table

Table 1: Error Codes Table

Error Code	Description	Command ¹
101	Invalid MIS interface command	All
102	Invalid login	All
104	Undefined entity's first name	1,2
105	First name contains pattern characters _, %, [or]	1,2
107	Undefined entity's last name	1,2
108	Last name contains pattern characters _, %, [or]	1,2
110	Undefined unique id	1,2,3
111	Duplicated unique id	1,2,3
114	Invalid company name	1,2
115	Invalid department name	1,2
116	Invalid entity type (0 = regular, 1 = visitor, 2 = asset)	1,2
117	Invalid sponsor	1,2
118	Invalid division	1,2
119	Invalid team	1,2
120	Invalid category	1,2
121	RPC fail	All
122	Invalid XML data	All

Table 1: Error Codes Table

Error Code	Description	Command ¹
123	Invalid site	1,2
303	Entity not found	2, 3, 4
304	Invalid start date and void date (e.g., start date > void date)	1,2
305	No Image	5
306	Unknown Partition	All
307	Disabled account	All
308	Invalid account	All
309	Expired password	All
310	Partition rights insufficient	All
311	No sufficient rights to entity	All
312	No image folder defined	5
402	Issue level out of range	1,2
405	Badge owned by other entity	1,2
406	Badge in different partition	1,2
407	Facility code invalid	1,2
500	Badge image database error	5
501	Portrait table error	5
502	Unable to export image	5
503	Database exception when exporting image	5
504	Unable to load image	5
505	Invalid image file name	1,2,5
600	Access Group invalid (x - 600)	1,2
700	Timezone invalid (x - 700)	1,2
800	Access Group / Timezone combination invalid (x - 800)	1,2
30000	Entity (person) cannot be established	All
30001	Entity (visitor) cannot be established	All
30002	Entity (asset) cannot be established	All
30100	MIS_BLL_ERROR_PORTRAIT_COLLECTION	1,2
30101	MIS_BLL_ERROR_SPONSOR_COLLECTION	1,2
30102	MIS_BLL_ERROR_ACCESS_BADGE_AGENT	1,2
30103	MIS_BLL_ERROR_ACCESS_PROFILE_HEADER_AGEN	1,2
30104	MIS_BLL_ERROR_ACCESS_PROFILE_COLLECTION	1,2
30105	MIS_BLL_ERROR_ACCESS_PROFILE_SITE_COLLECT	1,2
30200	MIS_BLL_ERROR_VALIDATION_ENTITY	1,2
30201	MIS_BLL_ERROR_VALIDATION_BADGE	1,2
10000 to 19999 ²	Insufficient access rights or incorrect property	1,2
20000 to 29999 ²	Invalid value for property	1,2

1. See “Command” row in Table 2 for number reference.

2. See the following code system description.

The exact description for error codes from 10000 to 29999 can be determined according to the following code system:

GAFFF

G = Group Code

A = Agent

FFF = Field

Group Code (“G”)

The first digit of the code determines the following:

1 = Insufficient access rights or incorrect property

2 = Invalid value for property

Agent (“A”)

The second digit of the code determines the following agent type:

1 = Entity

2 = Access Badge

3 = Access Profile

Field (“FFF”)

The last three digits of the code are associated with the following fields:

1 = First Name	16 = Department	30 = Picture
2 = Middle Name	17 = Division	31 = Sponsor
3 = Last Name	18 = Team	32 = Access Profile
4 = ID	19 = Type	33 = IAG
5 = Suite	20 = Portrait	34 = Sequence
6 = Address	21 = Sponsor ID	35 = Category
7 = City	22 = Facility Code	36 = ZIP
8 = State	23 = Badge	37 = Issue Level
9 = Country	24 = Access Group	38 = User Defined Fields
10 = Phone	25 = Time Zone	39 = UDF Text
11 = Extension	26 = Partition	40 = UDF Numeric
12 = Email	27 = Public	41 = UDF Boolean
13 = Start Date	28 = Description	42 = UDF Date
14 = End Date	29 = Validation Range	43 = Sponsor Type
15 = Company		

Examples

11001

MIS_INVALID_BLL_PROPERTY + AGENT_ENTITY + FIELD_FIRSTNAME:
Property ‘FirstName’ for agent type ‘Entity’ (Person or Asset) is invalid (e.g. incorrect name or insufficient rights)

21018

MIS_INVALID_BLL_PROP_VALUE + AGENT_ENTITY + FIELD_TEAM:
Incorrect value for property ‘Team’ agent type ‘Entity’ (Person or Asset)

MIS Interface Input Table

Table 2: MIS Interface Input Table

Column Name	Data Type	Usage
Command	Integer	1 = Add 2 = Update 3 = Delete 4 = Query 5 = Export Image
LoginName	nchar[25]	Must match operator credentials defined in P2000
Password	nchar[25]	Must match operator credentials defined in P2000
RequestID	Integer	Assigned by the external system (to identify Output record)
Site	nchar[32]	(Optional) Used with Enterprise configuration to determine site. If NULL, entity/identifier assigned to local site.
IsPublic	Integer	0 = Non-public 1 = Public NULL defaults to 0
FirstName	nchar[25]	Type 0 (Regular) and 1 (Visitor) only
MiddleName	nchar[3]	Type 0 (Regular) and 1 (Visitor) only
LastName	nchar[25]	
Description	nchar[80]	Type 2 (asset) only
ID	nchar[25]	Must be unique for every entity
Suite	nchar[32]	
Address	nchar[64]	
City	nchar[32]	
State	nchar[32]	
Zip	nchar[32]	
Country	nchar[32]	
Phone	nchar[16]	
Extension	nchar[6]	
Email	nchar[64]	Email address
StartDate	Timestamp	YYYY-MM-DD <space> 00:00:00
EndDate	Timestamp	If not NULL, YYYY-MM-DD <space> 00:00:00
Company	nchar[32]	If not NULL, must match an existing Company name
Department	nchar[32]	If not NULL, must match an existing Department name
Team	nchar[32]	
Division	nchar[32]	
Type	Integer	0 = Regular 1 = Visitor 2 = Asset
Category	nchar[32]	

Table 2: MIS Interface Input Table

Column Name	Data Type	Usage
PortraitFile	nchar[250]	For Add and Update commands, the PortraitFile column contains the image file to read. If the filename contains path information, the image will be read from the file and path specified. If the filename does not contain path information, the image will be read from the MIS Image Folder setting in Site Parameters.
SponsorID	nchar[25]	If not NULL, must be an existing Entity Unique ID (only for Visitor Type)
Facility Code	Integer	As defined in Site Parameters, or zero for default Facility Code
Badge	nchar[20]	
IssueLevel	Integer	0 to 255
BadgeDisable	Integer	0 = No (default) 1 = Yes (badge is disabled)
AccessGrp	nchar[32]	If not NULL, must match existing Access Group
Timezone	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_01	nchar[32]	If not NULL, must match existing Access Group
Timezone_01	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_02	nchar[32]	If not NULL, must match existing Access Group
Timezone_02	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_03	nchar[32]	If not NULL, must match existing Access Group
Timezone_03	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_04	nchar[32]	If not NULL, must match existing Access Group
Timezone_04	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_05	nchar[32]	If not NULL, must match existing Access Group
Timezone_05	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_06	nchar[32]	If not NULL, must match existing Access Group
Timezone_06	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_07	nchar[32]	If not NULL, must match existing Access Group
Timezone_07	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_08	nchar[32]	If not NULL, must match existing Access Group
Timezone_08	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_09	nchar[32]	If not NULL, must match existing Access Group
Timezone_09	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_10	nchar[32]	If not NULL, must match existing Access Group
Timezone_10	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_11	nchar[32]	If not NULL, must match existing Access Group
Timezone_11	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_12	nchar[32]	If not NULL, must match existing Access Group
Timezone_12	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_13	nchar[32]	If not NULL, must match existing Access Group

Table 2: MIS Interface Input Table

Column Name	Data Type	Usage
Timezone_13	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_14	nchar[32]	If not NULL, must match existing Access Group
Timezone_14	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_15	nchar[32]	If not NULL, must match existing Access Group
Timezone_15	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_16	nchar[32]	If not NULL, must match existing Access Group
Timezone_16	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_17	nchar[32]	If not NULL, must match existing Access Group
Timezone_17	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_18	nchar[32]	If not NULL, must match existing Access Group
Timezone_18	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_19	nchar[32]	If not NULL, must match existing Access Group
Timezone_19	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_20	nchar[32]	If not NULL, must match existing Access Group
Timezone_20	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_21	nchar[32]	If not NULL, must match existing Access Group
Timezone_21	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_22	nchar[32]	If not NULL, must match existing Access Group
Timezone_22	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_23	nchar[32]	If not NULL, must match existing Access Group
Timezone_23	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_24	nchar[32]	If not NULL, must match existing Access Group
Timezone_24	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_25	nchar[32]	If not NULL, must match existing Access Group
Timezone_25	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_26	nchar[32]	If not NULL, must match existing Access Group
Timezone_26	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_27	nchar[32]	If not NULL, must match existing Access Group
Timezone_27	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_28	nchar[32]	If not NULL, must match existing Access Group
Timezone_28	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_29	nchar[32]	If not NULL, must match existing Access Group
Timezone_29	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_30	nchar[32]	If not NULL, must match existing Access Group
Timezone_30	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_31	nchar[32]	If not NULL, must match existing Access Group
Timezone_31	nchar[32]	If not NULL, must match existing Timezone

User Defined Fields (UDF) for partitions, as defined by P2000 Operators

Fields Required for Each Command

Table 3: Fields Required for Each Command

Field	Command				
	Add	Update	Delete	Query	Export Image
Command	Yes	Yes	Yes	Yes	Yes
LoginName	Yes	Yes	Yes	Yes	Yes
Password	Yes	Yes	Yes	Yes	Yes
FirstName	Yes	Yes	No	No ¹	No
LastName	Yes	Yes	No	No ¹	No
ID	Yes	Yes	Yes	No ¹	No
StartDate	Yes	Yes	No	No	No
Type	Yes	Yes	Yes	No	No

1. See note on page 5.

The Query can be searched by the following fields: the ID field *or* the FirstName and LastName fields.

MIS Interface Output Table

Table 4: MIS Interface Output Table

Column Name	Data Type	Usage
Result	Integer	1 = Success. Overwrites error code as defined in Table 1.
RequestID	Integer	The Request_ID from the Input table record that caused the result
Site	nchar[32]	(Optional) Used with Enterprise configuration to determine site. If NULL, entity/identifier assigned to local site.
IsPublic	Integer	0 = Non-public 1 = Public NULL defaults to 0
UniqueID	Integer	P2000 internal unique ID for each entity
FirstName	nchar[25]	Type 0 (Regular) and 1 (Visitor) only
MiddleName	nchar[3]	Type 0 (Regular) and 1 (Visitor) only
LastName	nchar[25]	
Description	nchar[80]	Type 2 (asset) only
ID	nchar[25]	Must be unique for every entity
Suite	nchar[32]	
Address	nchar[64]	
City	nchar[32]	
State	nchar[32]	
Zip	nchar[32]	

Table 4: MIS Interface Output Table

Column Name	Data Type	Usage
Country	nchar[32]	
Phone	nchar[16]	
Extension	nchar[6]	
Email	nchar[64]	Email address
StartDate	Timestamp	YYYY-MM-DD <space> 00:00:00
EndDate	Timestamp	If not NULL, YYYY-MM-DD <space> 00:00:00
Company	nchar[32]	If not NULL, must match an existing Company name
Department	nchar[32]	If not NULL, must match an existing Department name
Team	nchar[32]	
Division	nchar[32]	
Type	Integer	0 = Regular 1 = Visitor 2 = Asset
Category	nchar[32]	
PortraitFile	nchar[250]	For Add and Update commands, the PortraitFile column contains the image file to read. If the filename contains path information, the image will be read from the file and path specified. If the filename does not contain path information, the image will be read from the MIS Image Folder setting in Site Parameters.
SponsorID	nchar[25]	If not NULL, must be an existing Entity Unique ID (only for Visitor Type)
Facility Code	Integer	As defined in Site Parameters, or zero for default Facility Code
Badge	nchar[20]	
IssueLevel	Integer	0 to 255
Badge Disable	Integer	0 = No (default) 1 = Yes (badge is disabled)
AccessGrp	nchar[32]	If not NULL, must match existing Access Group
Timezone	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_01	nchar[32]	If not NULL, must match existing Access Group
Timezone_01	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_02	nchar[32]	If not NULL, must match existing Access Group
Timezone_02	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_03	nchar[32]	If not NULL, must match existing Access Group
Timezone_03	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_04	nchar[32]	If not NULL, must match existing Access Group
Timezone_04	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_05	nchar[32]	If not NULL, must match existing Access Group
Timezone_05	nchar[32]	If not NULL, must match existing Timezone

Table 4: MIS Interface Output Table

Column Name	Data Type	Usage
AccessGrp_06	nchar[32]	If not NULL, must match existing Access Group
Timezone_06	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_07	nchar[32]	If not NULL, must match existing Access Group
Timezone_07	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_08	nchar[32]	If not NULL, must match existing Access Group
Timezone_08	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_09	nchar[32]	If not NULL, must match existing Access Group
Timezone_09	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_10	nchar[32]	If not NULL, must match existing Access Group
Timezone_10	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_11	nchar[32]	If not NULL, must match existing Access Group
Timezone_11	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_12	nchar[32]	If not NULL, must match existing Access Group
Timezone_12	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_13	nchar[32]	If not NULL, must match existing Access Group
Timezone_13	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_14	nchar[32]	If not NULL, must match existing Access Group
Timezone_14	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_15	nchar[32]	If not NULL, must match existing Access Group
Timezone_15	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_16	nchar[32]	If not NULL, must match existing Access Group
Timezone_16	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_17	nchar[32]	If not NULL, must match existing Access Group
Timezone_17	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_18	nchar[32]	If not NULL, must match existing Access Group
Timezone_18	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_19	nchar[32]	If not NULL, must match existing Access Group
Timezone_19	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_20	nchar[32]	If not NULL, must match existing Access Group
Timezone_20	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_21	nchar[32]	If not NULL, must match existing Access Group
Timezone_21	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_22	nchar[32]	If not NULL, must match existing Access Group
Timezone_22	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_23	nchar[32]	If not NULL, must match existing Access Group
Timezone_23	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_24	nchar[32]	If not NULL, must match existing Access Group
Timezone_24	nchar[32]	If not NULL, must match existing Timezone

Table 4: MIS Interface Output Table

Column Name	Data Type	Usage
AccessGrp_25	nchar[32]	If not NULL, must match existing Access Group
Timezone_25	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_26	nchar[32]	If not NULL, must match existing Access Group
Timezone_26	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_27	nchar[32]	If not NULL, must match existing Access Group
Timezone_27	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_28	nchar[32]	If not NULL, must match existing Access Group
Timezone_28	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_29	nchar[32]	If not NULL, must match existing Access Group
Timezone_29	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_30	nchar[32]	If not NULL, must match existing Access Group
Timezone_30	nchar[32]	If not NULL, must match existing Timezone
AccessGrp_31	nchar[32]	If not NULL, must match existing Access Group
Timezone_31	nchar[32]	If not NULL, must match existing Timezone

PARTITIONED SYSTEMS

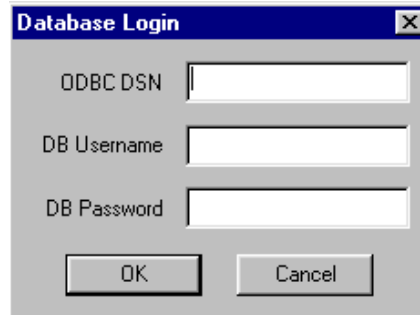
On a P2000 system that has the Partitioning option, a set of Input and Output tables will be created for each partition. The table names will be prefixed by the Partition name. These tables are in addition to the normal Input and Output tables, which will be used for the Super User partition.

For example, if a P2000 system has two added partitions, named Partition 1 and Partition 2, the MIS Interface will consist of the following six tables:

super_user_input	Input table for Super User partition
Partition_1_input	Input table for Partition 1 partition
Partition_2_input	Input table for Partition 2 partition
super_user_output	Output table for Super User Partition
Partition_1_output	Output table for Partition 1 partition
Partition_2_output	Output table for Partition 2 partition

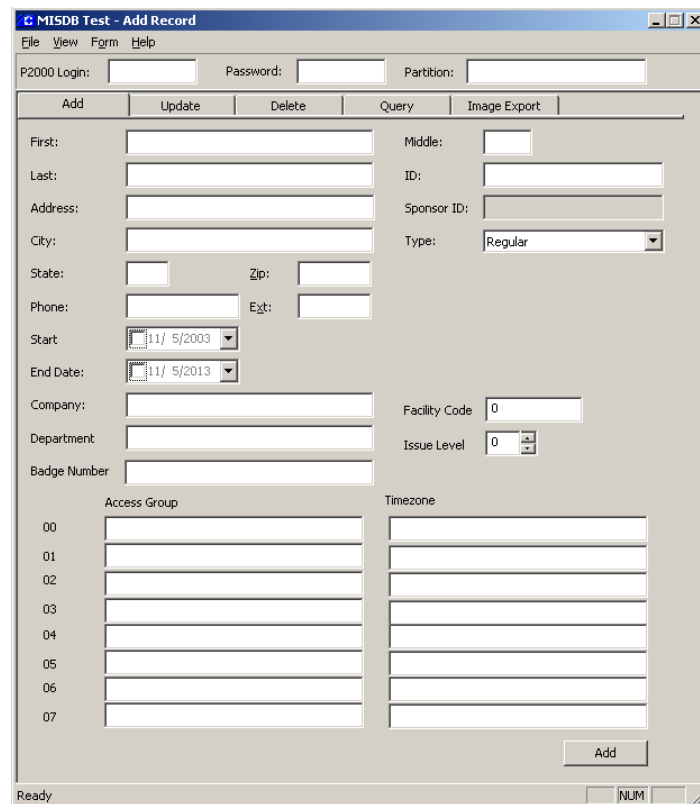
► To Run the MIS Test Program:

1. Run the **MISDBTest.exe** application file located in *Local Disk:\Program Files\Johnson Controls\P2000\Tools\MIS*. The Database Login dialog box appears.



A dialog box titled "Database Login" with a close button (X) in the top right corner. It contains three text input fields: "ODBC DSN", "DB Username", and "DB Password". Below the fields are two buttons: "OK" and "Cancel".

2. In the **ODBC DSN** box, enter the data source name used to access the P2000 database (e.g. P2000 Entity Config database).
3. In the **DB Username** box, enter the database user name for the MIS Interface.
4. In the **DB Password** box, enter the database password for the MIS Interface.
5. Click **OK**. The **MISDB Test** window appears.



A window titled "MISDB Test - Add Record" with a menu bar (File, View, Form, Help). It contains several input fields and a table. At the top are "P2000 Login:", "Password:", and "Partition:" fields. Below these are tabs: "Add", "Update", "Delete", "Query", and "Image Export". The "Add" tab is selected. The form includes fields for "First:", "Last:", "Address:", "City:", "State:", "Zip:", "Phone:", "Egt:", "Start" (with a date picker set to 11/5/2003), "End Date" (with a date picker set to 11/5/2013), "Company:", "Department", "Badge Number", "Middle:", "ID:", "Sponsor ID:", "Type:" (a dropdown menu set to "Regular"), "Facility Code" (set to 0), and "Issue Level" (set to 0). At the bottom is a table with 8 rows (00 to 07) and 2 columns: "Access Group" and "Timezone". An "Add" button is at the bottom right. The status bar at the bottom says "Ready" and "NUM".

6. In the **P2000 Login** box, enter the user name used to logging on to the P2000 system.
7. In the **Password** box, enter password used to logging on to the P2000 system.
8. In the **Partition** box, enter the partition for the Entity database you wish to create or append. If your system is not partitioned, enter Super User.

NOTE

In a partitioned system, a set of Input and Output tables will be created for each partition. The table names will be prefixed by the Partition name. These tables are in addition to the normal Input and Output tables, which will be used for the Super User partition.
