Chapter 11 KingView Network Connection

In this chapter, you will
- Learn how to configure a network
- Learn how to use a remote I/O variable

Section 1 Account for network connection

Introduction

KingView has a real client-server mode network structure. The version of KingView in the KingView Network should be the same as the. KingView Network based in the TCP/IP protocol. The PC running KingView should be a node in the LAN (local area network). The network structure is shown as below.

![Network structure graph]

Introduction of a common node

IO server: It is in charge of acquiring data. If a node is connected to a device but is not defined as an IO server, it still acquires data but does not release the data to the network. You can set one or several IO servers.

Alarm server: It is in charge of saving alarms messages. Alarm messages produced by the IO servers are transferred to a special alarm server by the network whilst the system is running, after the alarm server validates them, it generates and records alarm messages.

Historical logging server: It is in charge of saving historical data. Historical data that needs
to be saved in the IO server is transferred and saved to the historical logging server whilst the system is running.

Login server: It is in charge of validating the user login on the network. It is unique to the whole network.

Check time server: It is in charge of unifying the system time on every node, to ensure the time of every node is the same.

Client: If a node is defined as a client, it can access data from a special server. If a node is defined as a server, it can also be a client of other servers. (For example: if a computer is defined as a check time server, it can also be the client of an IO server)

Section 2 Network Configuration

It is necessary to configure the network, set network parameters for every node and define the variables for data exchange, storage and saving the alarm messages and historical data. We will show you how to configure a server and client model as follows.

Server configuration

1. Ensure that the KingView project you want to network (d:\peixun\my project) is set to full share.
2. In the “project catalog show zone” on the left side of the TouchExplorer window select “system configuration” and then double click on “:network configuration” the following dialogue box will appear as figure 11-2 shows:

![Network configurations on server](image)

Figure 11-2 network configurations on server

“Local Node” must be the name of the computer name or the local IP address
3. Click “node type” in the network configuration window and change the property
Chapter 11  KingView Network Connection

configuration as figure 11-3 shows:

Figure 11-3 Dialog box for service node type

Once set up is complete the local machine has five functions, it is a Login Server, IO Server, Alarm Server, History Server and can also perform History Data Backup.

Client Configuration

1. Create a new KingView project in the client PC called “client project”, then open the project.

2. Click the “Station” tag on the left of the TouchExplorer window, right click in the editing zone, select “new remote station” from the popup menu as figure 11-4 shows:

Figure 11-4 New remote website menu

3. The remote station configuration dialogue box will popup as figure 11-5 shows:
Select “Local Node Configuration”, from the folder-browsing window, then select the network project that has been shared from the server (d:\peixun\my project), the configuration information on the server will be shown automatically as figure 11-6 shows:

4. Click “OK” to close the dialogue box. Once the remote station configuration is finished you will see all the variables defined in the remote station in the client’s data dictionary as figure 11-7 shows:
5. From the “project catalog show zone” on the left side of the TouchExplorer window select “system configuration” and then double click “network configuration”, the dialogue box will popup as figure 11-8 shows:

![Figure 11-8 network configurations on the server](image)

The “local node name” must be the name of the computer or a local IP address.

6. Click “node type” in the network configuration window and ensure the property configuration is as figure 11-9 shows:

![Figure 11-9 Dialog box for client node type](image)

Select the server IP address from the dropdown menu “Login server”.

7. Click “client configuration” in the network configuration window and ensure the property configuration is as figure 11-10 shows:
The local machine is now not only a client of the IO server, but it is also a client of the Alarm server and the Historical logging server.

**Use of I/O variables**

The client can access the variables in the server once configuration of the client network is complete. To access the variable:

1. Create a new picture in the client project called: data access graph
2. Add a text object to the graph; connect the variable defined in the server to a simulation value output as figure 11-11 shows:

    ![Figure 11-11 Dialog box for simulation value output](image)

3. From the “file” menu select “save all pictures” to save the settings.
4. To enter the running system select “switch to View” from the “file” menu you will then see the material oil variable data change in synch with the data change in the server, this allows you to monitor and control the scene from a remote computer.

*Note: The server must be run before the client.*
Review:

1. Configure a network project, and set up remote control of a server variable.