# General Specifications

Model NT304AJ
Multi-task Package

GS 34P02H04-01E

## ■ GENERAL

*The NT304AJ multi-task package is an optional software package that provides functions effective for creating multitask-based applications by application form or Visual Basic in a Versatile Data Server Software (VDS) system.*

*When creating a large-scale application, it is a general practice to break down processes on a functional unit basis so the application will result in a program composed of multiple tasks (multitask program), rather than realizing all functions with just one program. This strategy ensures design independency and makes the application easy to maintain. Another advantage is that the application can be executed at higher speeds by defining each processing block as a separate task.*

*The multi-task package provides functions essential for creating multitask-based applications, i.e., sharing data between tasks or between a task and an I/O device and communicating between tasks by exchanging events.*

## ■ SYSTEM REQUIREMENTS

The system requirements follow those required for VDS specified in VDS Versatile Database Server Software, GS 34P02A02-01E.

## ■ FUNCTION SPECIFICATIONS

The data sharing function is provided by block data objects and block data access objects, while the inter-task communication function (exchange of events) is provided by signal exchange objects.

### ● Block Data Objects

A block data object is an object that runs on a data server. The object retains up to 32 Kbytes of data shared between the data server and multiple application forms/VB applications. The data shared in the object can be structured data.

This block data object also functions as a buffer for collectively exchanging data between the data server and an I/O device.

It is possible to collectively exchange the entire volume of data retained by the block data object between the data server and the I/O device (*1).

*1: The actual volume of data collectively transferred depends on I/O devices. It is possible to collectively exchange up to 2 Kbytes of data between the data server and an autonomous controller FCN/FCJ.

### ● Block Data Access Objects

A block data access object is an object that runs on a data server or an application form/VB application. The block data access object can have high-speed access to shared data retained by a block data object.

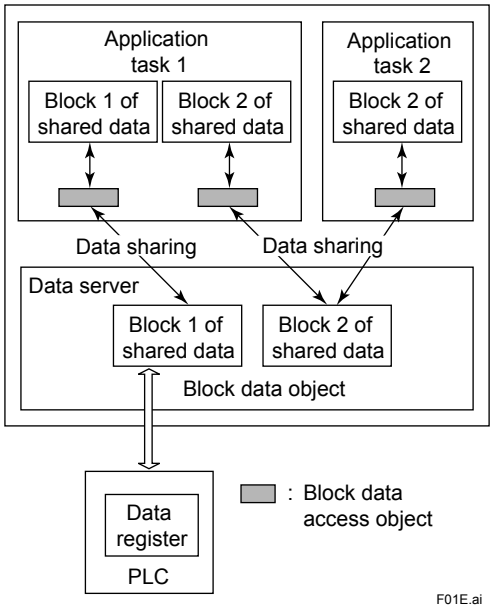
**Data Sharing Function**

The data sharing function allows data to be shared not only between tasks that run on the same computer but also between tasks that run on different computers interconnected through a network. In addition, data sharing with an I/O device (e.g., PLC) is achieved by exchanging the data with the registers of the I/O device.

Data that need to be shared can be separated into multiple blocks by using multiple block data objects. Thus, each task can gain access to required blocks only. This means no access is made to unnecessary data between irrelevant tasks.

When sharing data between tasks, it is possible for all tasks to always access the same data. When sharing data between an I/O device (e.g., PLC) and a task, data exchange is carried out at a specific point in time between the I/O device and the task.

Another feature of the function is that access to every block of data shared between tasks can be made by the block name. It is therefore possible to write easy-to-understand programs.



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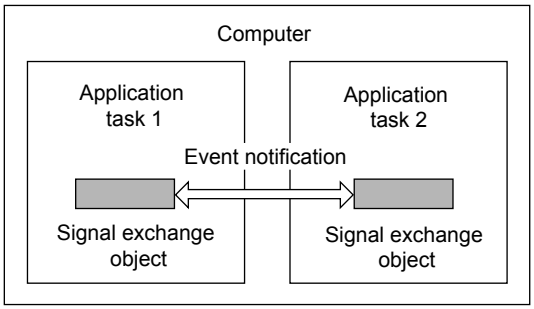
### ● Signal Exchange Objects

A signal exchange object is an object that runs on a data server or an application form/VB application. The object is responsible for exchanging events (signals) between tasks.

**Event Notification Function**

The event notification function allows events to be notified not only between programs that run on the same computer but also between tasks that run on different computers interconnected through a network. In addition, data sharing with an I/O device (e.g., PLC) is achieved by exchanging the data with the registers of the I/O device. In addition to event notification, the function can send data of variant type.

Events are notified by calling a method for the object in question, and can be received as events of Visual Basic.

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## ■ MODEL AND SUFFIX CODES

| Model | Suffix Code | Description |
|---|---|---|
| NT304AJ | -LW11A | Multi-task package for Full-time Version |
| NT304RJ | -LW11A | Multi-task package for Run-time Version |

## ■ ORDERING INFORMATION

Specify the model and suffix codes.

## ■ RELATED DOCUMENT

• VDS, GS 34P02A02-01E

## ■ TRADEMARKS

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