Features and Benefits

**OPC client subscription:** The Harmony OPC® Server allows OPC Clients to subscribe to Harmony control system tag information. The Harmony OPC Server will provide read/write access in real time using the OPC Data Access Custom Interface 2.0 specification.

**OPC items (atoms):** The Harmony OPC Server can host up to 30,000 OPC items (atoms) by connecting to the Harmony Control system through a number of supported interfaces. This product can be licensed to support 100, 250, 500, 1,000, 2,500, 5,000, 10,000, 20,000, or 30,000 OPC items.

**Compatibility:** The Harmony OPC Server is compatible with the Operate IT Process Portal B1.2 with Harmony Connect, Produce IT Batch, Data Link, and Inform IT Enterprise Historian systems. It is also compatible with the major requirements of the OPC Data Access 2.0 specification (standardized specification from the OPC Foundation®). The OPC Data Access 2.0 specification provides the COM interface methods for the real-time data that is being transferred between the Symphony™ Harmony Database and an OPC Client. It provides an architecture that allows a mapping of the Harmony data and exception report data into OPC Data Access 2.0 message types. The exception report data is brought into the OPC Client as real-time data and treated as any other point.

**Real-time data:** The real-time data is available from the Harmony OPC Server via the OPC Data Access Application Programming Interface (API).

The Harmony OPC Server software provides OPC connectivity between the ABB Harmony Distributed Control System (DCS) and OPC Clients. The Harmony OPC Server supports the OPC Data Access components.

The Harmony OPC Server provides data to a number of different clients in an industry standard format. The Harmony OPC Server translates data from the Harmony control system to OPC for data transfer to an OPC Client.

The Harmony OPC Server supports Distributed Component Object Model (DCOM) communication to allow for remote client connection from anywhere on the network. The Harmony OPC Server supports the custom interface which allows for very fast data access. The Harmony OPC Server supports synchronous and asynchronous reads and writes and data caching within the server to allow for efficient communication between the OPC Clients and the Harmony OPC Server.

The Harmony OPC Server is installed as a standalone Server on a workstation. Client applications can be installed on top of this server on the same workstation. The support of the Harmony OPC Server on a system that contains other ABB or non ABB servers is not provided.

The Harmony OPC Server can be installed to run as a service or as a normal application.
Operation

Monitor the operation of the Harmony OPC Server by using a series of OPC utilities or the OPC Client. The OPC Client uses a message syntax format to establish a connection with the OPC Server for a particular OPC item. The message syntax creates an OPC item. The OPC utilities are as follows:

- **Export Database**: Creates an OPC item text file based on the existing Harmony OPC Server database.
- **Import Database**: Populates a Harmony OPC Server database with an OPC item text file.
- **View Database**: Gives a detailed look at the contents of the Harmony OPC Server database.
- **View System Message Log**: Provides a snapshot of the Harmony OPC Server activities.
- **Harmony OPC Statistics**: Displays current information regarding the communication status of the Harmony OPC Server.

Software and Hardware Requirements

The workstation requires the following software packages installed:

- Windows® 2000 Server or Professional operating system.
- MDAC 2.5 or greater (available from Microsoft®).
- SemAPI Run-Time (included).
- ABB Harmony OPC Server (included).
- OPC Data Access components (included).

Workstation hardware must be compatible with Windows 2000 software components and requires a Pentium® III Class processor, 500 MHz (or greater) with 512 megabytes RAM, 5 Gbytes of hard disk space, and a communication interface (refer to the following table).

<table>
<thead>
<tr>
<th>Module</th>
<th>Ethernet™ TCP/IP</th>
<th>Serial</th>
<th>SCSI</th>
<th>Maximum OPC Items Supported</th>
</tr>
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<tr>
<td>INICI03</td>
<td>—</td>
<td>Supported</td>
<td>Supported</td>
<td>30,000</td>
</tr>
<tr>
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<td>Supported</td>
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<td>10,000</td>
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<tr>
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<td>—</td>
<td>—</td>
<td>30,000</td>
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