



# SYSPRO e.net solutions™





Responsive



**SYSPRO**<sup>TM</sup>  
e.net solutions

## Practical Applications Using SYSPRO e.net solutions

### **Business-to-Business Trading**

Deploy effective, collaborative commerce and B2B trading

Automatically import a purchase order from your customer

Allow customers to view their jobs and account information on the Web

Automatically consume and transmit transactions/documents with your trading partners

### **Application-to-Application Integration**

Extend SYSPRO business functionality to suit specific requirements

Integrate another best-of-breed or legacy application with SYSPRO

Integrate a wireless warehouse management system with SYSPRO

Collect and integrate real-time shop floor information into SYSPRO

### **Mobile Connectivity**

Process orders or query inventory in real-time using a pocket PC or mobile phone

Allow 24/7 SMS (Short Message Service) mobile phone inventory inquiries

Perform a physical count with a handheld PC

Obtain delivery confirmations using a Tablet PC

### **Internet Applications**

Customize Web-Based “Executive Views” to suit end-user requirements

Orders processed in real-time over the internet

Integrate B2B or B2C Web applications in real-time with SYSPRO software

Consolidate graphical dashboard views of your business with drill-down functionality

Automate purchasing through a Web-Based requisition system

Analyze, track and distribute ERP information through the Web

**Just imagine the possibilities...**

# SYSPRO e.net solutions

Utilizing the best technologies available, SYSPRO e.net solutions and Microsoft .NET® provide real value-added solutions to meet specific customer needs.

SYSPRO e.net solutions opens the door to developing unique solutions for customers using SYSPRO ERP Software. The XML standard and collaborative commerce tools, such as the embedded Document Flow Manager or Microsoft® BizTalk™, enable systems to be truly extensible and collaborate with any disparate or legacy system. As a result of the effective use of .NET, COM objects (components) and XML independent systems can collaborate in real-time. This kind of interoperability can only be achieved effectively by subscribing to a true Microsoft .NET strategy.

## .NET CONCEPTS AND SOA

The .NET concept is open to a variety of opportunities, and a picture emerges where a fully functional enterprise system can be extended and enhanced by utilizing the .NET technology. The essence of .NET architecture is a componentization of the application through the creation of objects that can be independently accessed to perform specific business functions and processes. The technology utilizes the XML standard as its “glue” for transferring data both between objects and into and out of the core system. Ultimately, SYSPRO e.net solutions allows the developer to focus on application development by making the application code cleaner and easier to manage. And because SYSPRO e.net solutions is XML-based, the code can be easily re-used in future projects, enabling a service oriented architecture (SOA) strategy.

## EMBEDDED COLLABORATIVE COMMERCE ENGINE

SYSPRO has embedded a collaborative commerce engine known as the Document Flow Manager (DFM) into SYSPRO e.net solutions. Simply, the DFM consumes and transmits XML transactions in an automated manner in real-time. The DFM continually checks pre-determined directories or email addresses on a Microsoft Exchange Server for XML transactions/documents to process. As the SYSPRO defined XML transaction is identified by the DFM, it is automatically consumed. The DFM will in turn invoke a business object to process the received transaction and then transmit a reply or outbound transaction as defined in the DFM.

## SECURITY, BUSINESS LOGIC AND DATA INTEGRITY

SYSPRO e.net solutions adheres to the following three core fundamentals:

- ❖ Security is enforced every time an object is accessed. The user is authenticated, and the security level prescribed by the core application is imposed.
- ❖ The business logic of the underlying application is always protected. Parameters are simply passed to the object for processing. The object protects the underlying business logic and processes the transaction based on the parameters passed as if a user was sitting at a client workstation and entering the transaction.
- ❖ The underlying data integrity is always protected since the raw data is never accessed. All data manipulation is controlled by the protected business logic. The integrity of the underlying system is kept intact at all times while at the same time creating an environment to extend functionality with a minimum amount of time, cost and expertise.

### **SYSPRO E.NET SOLUTIONS FRAMEWORK**

Consisting of a COM based architecture, Web-Based applications, Web Services and the Document Flow Manager, the framework allows the development of real collaborative solutions.

### **B2B AND B2C E-COMMERCE**

An example of the use of SYSPRO e.net solutions is in a B2B or B2C e-commerce environment. As a user navigates through the e-commerce site, different SYSPRO e.net objects are invoked to retrieve relevant information. For example, a buyer selects a product and in the background the Inventory Query object is invoked. The object performs a real-time inventory check and may also fetch the latest image of the product from the back-end SYSPRO ERP system. If we assume the buyer purchased the item, the information relevant to the buyer and the payment method is collected in the front-end e-commerce system. It is passed to a COM object using the XML standard and automatically processed in real-time in the back-end SYSPRO ERP system where the e-commerce environment is hosted by an ISP. Integration back to SYSPRO is achieved through the use of SYSPRO Web Services.

### **REAL-TIME WEB TRANSACTION PROCESSING**

In a hosted environment, it may not be feasible to transact in real-time directly through a Web Service and the COM object. In these situations the Document Flow Manager (DFM) can be used to process the transaction. For example, payment authorization is automatically processed in the front-end e-commerce system and the relevant information placed in an XML file. The XML file is then transmitted back to the DFM and consumed using the same business object as if it were processed using the Web Services. In a situation where the back-end SYSPRO ERP system was off-line for some reason, transactions/documents are queued for processing by the DFM. The DFM can initiate replies and transmit XML transactions/documents back to the e-commerce system and initiate emails or other proactive processes to increase efficiencies.

### **A RICHER CUSTOMER EXPERIENCE**

The effective implementation of an application on a .NET platform results in the transaction load or emphasis being shifted from the front office e-commerce system to the back office ERP system. For instance, an email thanking the buyer for a purchase can be initiated from the back office after the XML transaction is consumed by the ERP system. In doing this, the information sent can be more informative by including, for example, the expected production time frames and ship dates. The result is a richer customer experience resulting in happier customers and increased long term revenue.

### **FLUID ENVIRONMENT FOR RAPID ROI**

With the advent of .NET, customers can further benefit by being able to develop business specific applications to extend the functionality around the core ERP system. Because of .NET, XML, and COM, the large resource pool of programmers trained on the Microsoft platform and technologies like SYSPRO DFM and Microsoft BizTalk, the development environment is more accessible. The business logic is always embedded and protected by the COM object. The database integrity is protected as the business logic is always handling the table manipulation, and data is never accessed directly. SYSPRO e.net solutions ensures that security is maintained, and the entire system is never compromised.

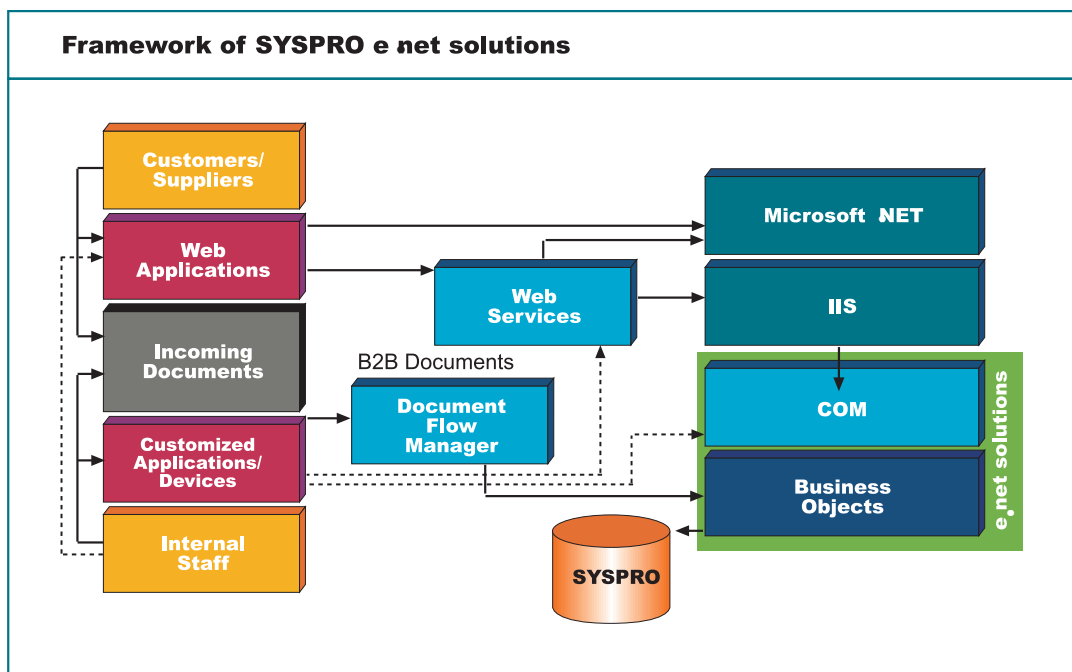
### **THINKING OUTSIDE THE BOX**

Developers are encouraged to think outside the box and stretch their imaginations and talents to build applications that fit specific unique business processes. This facilitates the delivery of true competitive advantage to customers who are willing to leverage leading edge technology. This approach to rolling out a tailored enterprise system can be undertaken at a much reduced cost, since the core application can continuously be upgraded and kept current without the added expense of re-testing and re-engineering applications written around the core system. The cost of ownership in using this new technology is reduced to such a large degree that the benefits are readily apparent.

# Benefits & Features

## SYSPRO e.net solutions

- ❖ **Simplified Application Development Environment** – Lowered development time and cost because developers can focus on delivering new applications, not the database and business logic
- ❖ **Reduced Development Maintenance Costs** – No direct database access is needed
- ❖ **Lowered Total Cost of Ownership** – Leverage investments in e.net technology and skills across numerous projects, initiatives, companies and business areas
- ❖ **Reduced Development Maintenance Costs** – Reduced costs and requirements to re-write custom applications when upgrading
- ❖ **Secure Interface to SYSPRO Database** – Security rules are inherited from SYSPRO software with the business logic and data always kept secure
- ❖ **XML Standard & Version Independence** – Reduced requirement and cost when upgrading since XML is used as the means of describing parameters and passing data to and from the business objects
- ❖ **Proven Technologies** – Built to the COM specification, extensive use of XML
- ❖ **Customer Focused Applications** – Create applications that meet specific company needs to improve customer service
- ❖ **Reduced Network Traffic** – Framework reduces network traffic
- ❖ **Cost Effective Web Deployment** – Web-Based interface requires only a browser and internet connection
- ❖ **Rich Business Functionality** – SYSPRO objects deliver the same rich business functionality as SYSPRO client server, easily delivering the functionality to Web and wireless platforms
- ❖ **One Interface** – Only one COM interface describes all classes and methods in the component framework
- ❖ **Optimized for Web Services** – Rapid development and effective use of Web Services using Microsoft Visual Studio®.NET and SYSPRO e.net solutions
- ❖ **Multi-Lingual Support and Error Messages** – Caters for applications that support localized user interfaces, e.g., error messages can be returned in different languages
- ❖ **Sample Code** – Sample applications and examples of SYSPRO e.net solutions provided
- ❖ **Buy Only What You Need** – Flexible licensing



## Document Flow Manager

- ❖ **Flexible** – Transactions/documents can be processed regardless of their structure or format
- ❖ **Faster Response Times** – Lead times between disparate systems or trading partners are dramatically reduced
- ❖ **Eliminate Duplication and Data Entry** – No manual recapture of transactions/documents required
- ❖ **Integration** – Facilitates the integration of SYSPRO applications to disparate systems
- ❖ **Cost Effective** – Functionality and interoperability of SYSPRO software can be leveraged, resulting in a lowered cost of ownership
- ❖ **Automated Transaction Processing and Routing** – Transactions/documents are automatically and instantly processed or routed as they arrive
- ❖ **Automatically Run Any Business Object** – All business objects can run automatically when a transaction is received
- ❖ **Incorporates XML Document/Transaction Management** – XML documents can be automatically archived to “failed” or “processed” folders
- ❖ **XSLT Translation** – XML documents can be translated using XSLT (eXtensible style sheet language transformations)
- ❖ **Email Integration** – Integrates with Microsoft Exchange for sending and receiving XML transactions/documents, and email notification can be sent to the originator of processed and/or failed documents
- ❖ **Collaborative Commerce** – Automated global business-to-business and business-to-consumer gateway
- ❖ **BizTalk Compatibility** – Can collaborate with Microsoft BizTalk Server
- ❖ **Built-In Document Query** – Allows analysis at investigation of processed documents, both successful and unsuccessful documents

## Web-Based Applications

- ❖ **Universal Access** – Browser (Internet Explorer) access and the appropriate login permissions are all that are required for usage
- ❖ **Low Maintenance and Centralized Administration** – Web server deployment and administration keep costs down
- ❖ **Fully Customizable** – Develop interface to suit specific company business requirements, branding, and functionality
- ❖ **Fully Integrated B2B and B2C** – Deliver a B2B or B2C Web-Based application integrated in real-time to SYSPRO ERP software
- ❖ **Language Independent** – Choose any Microsoft .NET supported language to provide additional functionality
- ❖ **Reduced Bandwidth** – Web-Based applications designed to minimize network traffic
- ❖ **Secure Global Access** – Access to data is strictly controlled by the security rules configured within SYSPRO software
- ❖ **Increased Performance and Scalability** – New Microsoft ASP .NET programming model and infrastructure enables more secure, scalable and stable applications



## Licensing

The licensing of SYSPRO e.net solutions is designed to be flexible so that a company need only purchase the functionality required for its business.

The application is divided into functional subsets within modules. For example, the Purchase Order module consists of several areas of functionality, such as Query Requisitions and Purchase Order Entry. The application functionality can be used as the building blocks to create custom applications.

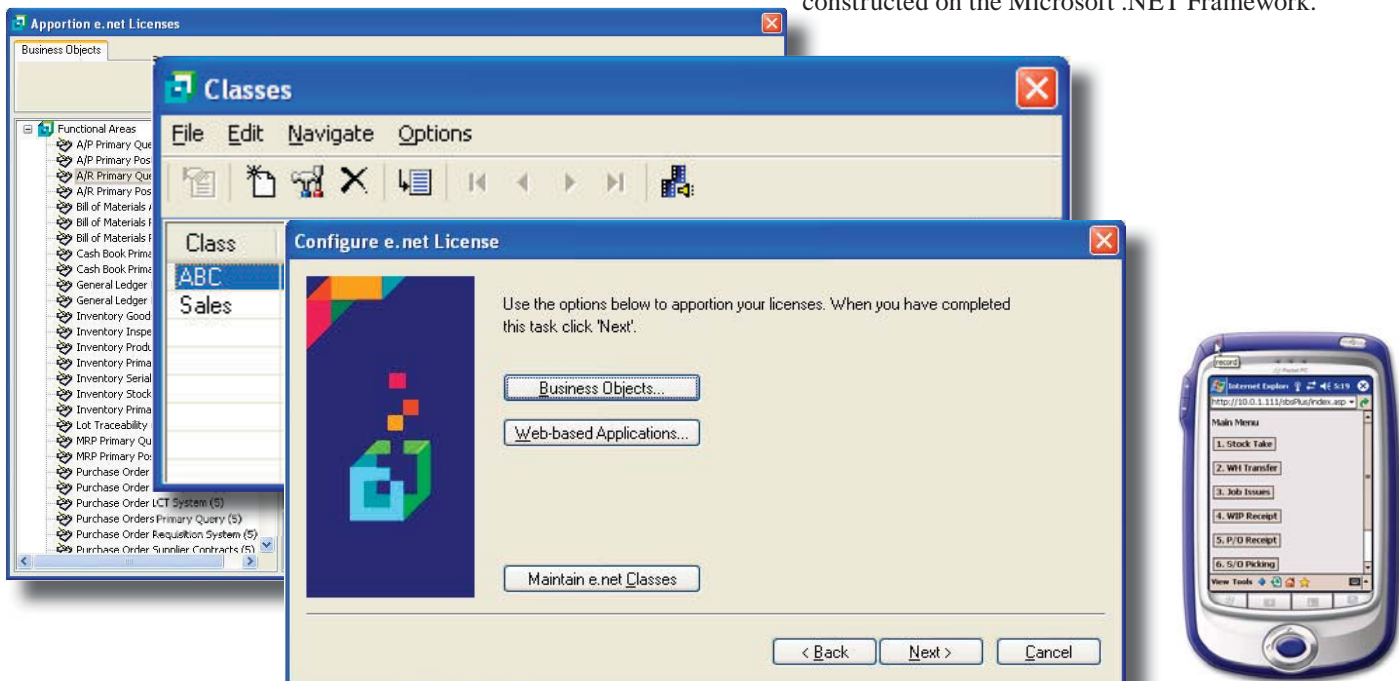
The Web-Based Applications are also licensed by areas of functionality.

In all cases, the SYSPRO module to which the functionality areas relate must have already been licensed.

## Technology Employed

- ❖ SYSPRO e.net solutions is an XML-based (eXtensible Markup Language) component architecture.
- ❖ SYSPRO e.net solutions consists of a component interface based on the component object model (COM) and a library of business objects. The COM application is a class library comprising four classes that expose a number of method calls that together provide a complete interface to SYSPRO business functionality.
- ❖ SYSPRO e.net solutions functionality is built into a library of business objects that can be called as required, depending on the type of solution needed.
- ❖ SYSPRO e.net solutions enables a developer to use the language of choice to develop the required application, providing that the language can interface to COM. Languages include Visual Basic, Visual Basic .NET, C#, C++, Visual Basic for Applications (VBA), VBScript, JScript and COBOL.
- ❖ SYSPRO e.net solutions Web-Based Applications are constructed on the Microsoft .NET Framework.

### Mobile Web-Based Applications



*SYSPRO e.net solutions is designed to deliver a fluid rapid application development environment to extend the core functionality of the SYSPRO enterprise system. Using tools like Microsoft Visual Studio.NET, business specific features such as mobile Web-Based applications can be developed around the core SYSPRO system in the most cost effective and efficient manner.*

# System Requirements

## SYSPRO e.net solutions

SYSPRO application server

- ❖ Windows 2000 Server or Windows 2003 Server
- ❖ Microsoft XML Parser MSXML version 3.0 or higher
- ❖ SYSPRO 6.0 or higher

Standalone machine for demonstration or testing purposes

- ❖ Windows 2000/XP Professional, Windows 2000/2003 Server
- ❖ Microsoft XML Parser MSXML version 3.0 or higher
- ❖ SYSPRO 6.0 or higher

## Executive Overview

The executive overview, built using SYSPRO e.net solutions, delivers a live snapshot of key business indicators with real-time drill down functionality right down to the transaction/document details.

The screenshot displays the 'Executive View' window with the following data:

Summary Information	
Bank Balance:	63,384,486.71
A/P balance:	5,913,210.94
A/R balance:	13,318,861.37
WIP valuation:	9,366.92
Inventory Valuation:	92,744,126.25
Purchase Order Commitment:	11,189,289.37
Sales Order Commitment:	324,204,129.88
Sales Orders Taken - Today:	0.00
Yesterday:	0.00
This week:	0.00

A/R Month To Date Summary		A/P Month To Date Summary	
Sales:	10,413,733.05	Invoices:	25,272.64
Credit notes:	-9,286.00	Credit notes:	-2,750.00
Debit notes:	250.00	Debit notes:	500.00
Receipts:	-2,500.00	Payments:	-912.00
Tax:	0.00	Adjustments:	0.00

**Warehouse Inventory Valuation**

Warehouse	Valuation
E	~10,000,000.00
FG	~5,000,000.00
FS	~10,000,000.00
N	~40,000,000.00
RM	~5,000,000.00
S	~10,000,000.00
SA	~5,000,000.00
SP	~5,000,000.00

**SYSPRO SDK Documentation**

The documentation window shows a table of classes and methods:

Class	Description and Methods
Utilities	This class contains miscellaneous facilities available from e.net solutions. There is a <code>Logout</code> method that is required to start an e.net session. This is used to authenticate a connection and return a valid <code>Logout</code> . The <code>UserID</code> is required for all subsequent e.net methods. There is a <code>LogoutAndClose</code> method that is used to gracefully close the e.net session. There is a <code>GetSessionInfo</code> method used to retrieve parameters about the current e.net session. There is a <code>Run</code> method to be used to run a <code>WebService</code> system program.
Query	Query Business Objects do not update or change the underlying database. They simply retrieve data, often applying business rules to the returned information. The Query Business Objects need to be passed an <code>SQL</code> string containing the parameters identifying what information is to be returned. They then retrieve the information and return the result as an <code>SQL</code> string. There is a <code>Query</code> method that can involve many 'Query' business objects. There is a <code>Query</code> method that returns information about a single row in any table in the database. There is a <code>Query</code> method that can 'browse' on tables in the database. This returns a series of rows as an <code>XML</code> string. The number of rows returned and other parameters can be configured to end-user requirements. The Transaction class includes methods for posting transactions.
Transaction	The <code>Post</code> method is used to actually post information to a 'Transaction' business object. These business objects take 2 <code>SQL</code> strings - the document to be posted and a parameter list. The <code>Build</code> method is used to prepare an <code>XML</code> document for use with the <code>Post</code> method. This can make it easier for a developer to actually use the <code>Post</code> method. The Setup class is used to add, update and delete rows from a SYSPRO database. Appropriate business rules will be applied - for example you cannot delete a stock code if there is a sales order for it. There is an <code>Update</code> method to add rows to a SYSPRO table. There is a <code>Delete</code> method to delete data from a SYSPRO table.
Setup	

**Software Developers Kit**  
 SYSPRO e.net solutions incorporates a comprehensive SYSPRO specific online help system designed to get developers productive in the shortest possible time frames.

## Web-Based Applications

SYSPRO application server

- ❖ Microsoft .NET Framework (excluding Windows 2003 Server)
- ❖ Microsoft Internet Information Server (IIS)
- ❖ Internet Explorer 6.0 or higher (only used to perform local test)

“Client” to the Web-Based applications (all environments)

- ❖ Internet Explorer 6.0 or higher

## Document Flow Manager

The Document Flow Manager is always installed on the machine that contains SYSPRO

- ❖ Microsoft Message Queue (MSMQ)
- ❖ Microsoft Exchange Server (if using email polling)
- ❖ Microsoft CDO (Collaboration Data Objects) on the SYSPRO Server (if using email polling)

## Real Stories — Real Benefits

**One of the largest breweries in the world** is using SYSPRO e.net solutions as the backbone to extend its ERP system. With close to 1000 users connected via desktops and PDAs to SYSPRO ERP using LAN, WAN and Satellite WAN. For them SYSPRO e.net solutions is an enabler.

**The leading distributor of corporate gifts** uses SYSPRO e.net solutions pervasively to manage and expedite its Web-Based ordering system as well as a 24/7 real time sales rep Web-Based reporting system.

**One of the foremost manufacturers of trailers** has developed a full Web-Based B2B solution linked to SYSPRO in real-time utilizing SYSPRO e.net solutions. This proactive manufacturer has empowered its customer service initiatives by providing real-time inventory information to resellers without a reseller having to either phone or fax the company.

**A world-renowned manufacturer of miniatures** for architects and hobbyists utilizes SYSPRO e.net solutions to integrate multiple disparate systems into one contiguous automated system. Multiple Web-Based B2B and B2C online stores, an in-house developed visual warehouse management system and SYSPRO are now one system.

**A food manufacturer that specializes in producing tortillas** was concerned with the inordinate amount of time it was taking clerks to process sales orders. Using SYSPRO e.net solutions, the order-taking process was simplified. Now, by entering a customer name, the clerk need only enter the quantities being ordered, not only saving time but enhancing overall customer service.

**Technology is leveraged by a proactive chocolate manufacturer** resulting in a system that allows customers to place orders on the web and choose a mixed selection of chocolates for each unique box. The customization of the web order, production and processing of the transactions are all made possible as a result of SYSPRO e.net solutions.

**The top distributor and manufacturer of customized shirts** uses SYSPRO e.net solutions to automate and integrate its web facing order entry system to SYSPRO in real-time. On a 24/7 basis customers can place orders using the SYSPRO rules-based configurator, by selecting styles, logos, colors and sizes. Orders are processed in real-time and production can react immediately to customer demand.



# Simply the Best

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Partner



**"VOTED  
Hottest  
Company"**



**"VOTED  
Software  
Company  
of the Year"**



**"VOTED  
best  
Accounting  
Software"**



FINALIST  
2005 / 2007



WINNER  
2004

Software Industry Awards  
"Software Company of the Year"  
SOFTWARE COUNCIL OF SOUTHERN CALIFORNIA



**"VOTED  
best  
Implementation  
Methodology"**



**"Best  
VAR  
Program  
Award"**



**"AeA  
Company  
Finalist  
2007"**



**"CRM  
Software  
Award"**



FINALIST  
2005 / 2007



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**"VOTED  
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