

Single Order Validation Application (SOVA) User's Guide

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Introduction

About the SOVA Application

Single Order Validation Application (SOVA) is a web based application that allows you to perform IBM's manufacturing level validation for IBM Servers, and associated preload software orders, Storage, Retail Store Systems, and Printers. SOVA allows you to discover manufacturing order failures before you submit your order to IBM. The order is specified in a configuration report (CFReport) file generated by a supported IBM product configurator. SOVA accepts version 30 or version 31 CFReports which are generated by approved product configurators like the iSeries (AS/400) IBM Configurator for e-business (e-config) and the pSeries (RS6000) IBM Configurator for e-business (e-config.) The CFReport is a file with an extension of .cfr after the file name or can be in a XML file.

SOVA is currently supported in the US and implemented as a pilot in EMEA.

About this Document

The SOVA User's Guide is expected to be used by the people that run the SOVA Application. Because the SOVA User's Guide helps explain some manufacturing validation terms that may not be familiar to those who typically run the configurators, SOVA users may find themselves referring to the User's Guide more often than they are accustomed to with other applications. Captured screens and scenario information in this document were accurate at the time of writing. Due to tool updates, the actual screen format and data might vary. It is highly recommended that you print the User's Guide.

Intended Audience

The primary user of SOVA (and the SOVA User's Guide) is the IBM Distributor, Business Partner, or IBM representative who creates orders for IBM products. After creating a valid order with a supported configurator, it is a logical next step to validate the order from a Manufacturing standpoint. Manufacturing validation includes more complex and detailed checks and rules *that specifically address the question: Can this system be built?*

End User Requirements

Because SOVA is a web based application, it can be used on any Personal Computer or device that provides access to the Internet and has access to the files that contain configurator output - the ConFigurator Report (CFReport) or XML. SOVA works using CFReports and XML as WEB browser inputs or the web service API function. The CFReports/XML files are typically stored on a Direct Access Storage Device (DASD) in the same Personal Computer that is used for Internet access. DASD requirements are minimal and processor speed does not markedly affect SOVA performance. SOVA processing time is determined almost entirely by order complexity. Response performance from the SOVA web site server is consistent with response

time for other internet searches. You should expect any validation request to be completed in 30 seconds or less for a typical CFReport. Large or complex configurations could take several minutes. SOVA will discontinue processing any request taking more than 5 minutes to process. For orders requiring more than five minutes, special handling instructions are provided. Please refer to section Validation Details Message Summary, message identifier SOV0004.

The following versions of web browsers are recommended:

Internet Explorer version 5.50.4522.1800 (or higher)

Netscape version 4.75 (or higher)

Operations Section

Getting Started

Using SOVA is simple. The SOVA operation screen is self explanatory. The first time user is encouraged to go directly to the SOVA web site after first running the order through the configurator. After you select a CFReport or XML that has been saved from the configurator, you instruct SOVA to run validation rules against the order. There are no processing options. Validation results are “Pass”, “Warning” or “Did not pass.” If the validation did not pass, it may take some effort to alter an order to allow passing the validation. This, of course, depends on order size and complexity. Once an order passes SOVA validation, it can be submitted to the order stream.

Starting SOVA

Preparing Input for SOVA - Producing a Configuration Report (CFReport)

SOVA can be initiated using a CFReport (version 30 or version 31), XML file or 3Y4PIP, as an input file. This file is generated by an authorized IBM configurator for e-business. The following configurators can be used to generate CFReports for SOVA:

- iSeries and AS/400 Servers
- iSeries and AS/400 Software
- pSeries and RS/6000 Systems
- pSeries and RS/6000 Software
- xseries
- POWER5 based Systems
- Printing Systems
- Retail Store Solutions
- Storage Solutions
- System z9, zSeries and S/390 Servers

The CFReports to be used as input to SOVA should be accessible from the computer you are using to access the SOVA web site. Typically, CFReports are on a hard drive or network drive.

Operating the IBM Configurators

Configurator operations are covered in detail in the configurator applications. If you do not have the proper configurator available, installation instructions can be found at <http://ftp.ibm.link.ibm.com/econfig/announce/index.htm>

Accessing the SOVA application from your browser

Start your web browser on the computer that contains or has access to the CFReports you intend to validate with SOVA. The URL for SOVA is **<http://www.ibm.com/servers/sova/index.jsp>**. **If the SOVA website is not available, please contact the IBM HELP Desk (1-800-IBM-4YOU).** The following screen should be displayed:

The screenshot shows the SOVA Single Order Validation Application web page. At the top, there is an IBM logo and navigation links for "United States [change]" and "Terms of use". Below the logo is a search bar with a "Search" button. A navigation menu includes "Home", "Products", "Services & solutions", "Support & downloads", and "My account". The main heading is "Single Order Validation Application" with a sub-heading "Submit a configuration". The main content area describes the application's purpose: "Single Order Validation Application (SOVA) performs a number of technical validation audits for IBM Servers, Retail Store Systems, Storage Systems, related peripherals, and associated IBM software. SOVA allows you to identify fulfillment and manufacturing order issues before you submit your order to IBM. The order is specified in a configuration report (CFReport file, CFXML file), generated by a supported IBM product configurator. SOVA is currently required for US orders and is available as a pilot for EMEA." Below this is a section titled "Select the CFREPORT or CFXML to be verified." with a text input field and a "Browse..." button. A "Submit" button is also present. A disclaimer states: "Response performance from the SOVA web site server is consistent with response time for other internet applications. You should expect this request to be completed in 15 seconds or less for a typical CFReport. Large or complex configurations could take longer. A request which takes over 5 minutes to complete will be 'time out' and be managed by SOVA Operations." On the right side, there is a "SOVA help" section with links to "SOVA user guide (185KB)", "SOVA online education (2654KB)", "Get Adobe Reader", "Feedback", and "Suggested improvements". At the bottom, there are links for "About IBM", "Privacy", and "Contact".

Selecting an order to validate with SOVA

SOVA must be told where to find the CFReports that have been saved from the configurator and are to be used as SOVA input. The easiest way to do this is to click the "Browse" button on the SOVA Home Page ("Submit a CFReport" screen.) This allows you to locate the CFReport you wish to validate. You may also type in the name of the CFReport file you wish to validate. Once the name of the CFReport file is shown in the "Select the CFReport" file entry space, you are ready to submit the CFReport file for validation by SOVA.

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Single Order Validation Application

Submit a configuration

Single Order Validation Application (SOVA) performs a number of technical validation audits for IBM Servers, Retail Store Systems, Storage Systems, related peripherals, and associated IBM software. SOVA allows you to identify fulfillment and manufacturing order issues before you submit your order to IBM. The order is specified in a configuration report (CFReport file,CFXML file), generated by a supported IBM product configurator. SOVA is currently required for US orders and is available as a pilot for EMEA.

Select the CFREPORT or CFXML to be verified.

C:\SOVA\Series.cfr

Response performance from the SOVA web site server is consistent with response time for other internet applications. You should expect this request to be completed in 15 seconds or less for a typical CFReport. Large or complex configurations could take longer. A request which takes over 5 minutes to complete will be 'time out' and be managed by SOVA Operations.

SOVA help

- [SOVA user guide \(185KB\)](#)
- [SOVA online education \(2654KB\)](#)
- [Get Adobe® Reader®](#)
- [Feedback](#)
- [Suggested improvements](#)

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Operating the SOVA Application

Click the "Submit" button to run SOVA. The SOVA application will then read the CFReport file selected and process it through the Manufacturing validation tools. This will take from a few seconds to several minutes depending on the complexity and size of the order. Upon completion of the validation, the results are displayed. An example is shown below.

Validation Results Description

It is highly recommended that the Validation results screen be printed. Once you leave the results screen and want to return, SOVA must rerun the validation of the CFReport to recreate the results.

Single Order Validation Application

SOVA validation results


Validation for file:5722cfr.cfr

Related links

- [IBM Configurator for e-business \(e-config\)](#)
- [Availability after Configuration Tool](#)

This table lists your SOVA validation results. If you have a 'Did Not Pass' Status, please correct any Severity Code E (Error) items listed in the table, then resubmit your updated CFReport file. Refer to the SOVA User Guide for message clarification. Please print this page for your reference. Leaving the page will require you to resubmit your validation request.

Order validation summary		
Order validation result	SOVA record locator	Run date
Pass	tas001120051117165043664	2005-11-17-16.50.43.664

Order validation details		
Message id	Severity code	Message text
 SOV2000	I	The ability of IBM to fulfill this order depends on available inventory. Ensure CRAD is prior to withdrawn date. Machine Type - Model: 9406-810, verify availability.
 SOV2000	I	The ability of IBM to fulfill this order depends on available inventory. Ensure CRAD is prior to withdrawn date. Machine Type - Model - feature: 5722-AC3-5819 , verify availability.

SOVA help

 [SOVA user guide](#) (0KB)

 [SOVA online education](#) (0KB)

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Document options

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There are three main sections of the "SOVA Validation Results" screen. The following is a description of all possible results that may be seen in these three sections.

- Validation for file:(CFReport File Identifier) Section of the Results Screen
 - This section contains the name of the CFReport file used for this validation. It is identical to the CFReport file identified in the "Select the CFReport....." file entry space in the SOVA Home Page: "Submit a CFReport." The file directory path is not shown.
- Order Validation Result Section of the Results Screen
 - The "Order Validation Result" column has two possible outcomes:
 - Pass** - The order represented by this CFReport is valid - Manufacturing should be able to produce this order without errors.
 - Did not pass** - The order represented by this CFReport is not valid - Manufacturing will not be able to produce this order without errors. Action is needed to correct the order before it can be submitted.
 - Warning - The order represented by this CFReport is valid. Manufacturing should be able to produce this order without errors but it is recommended that you resolve the 'warning' messages to ensure successful order submission.
 - The "SOVA record locator" column contains a SOVA generated mixed alphanumeric field that uniquely identifies this validation result. This record locator can be used later for order tracking in SOVA or SOVA order problem resolution. The format of the displayed locator is SASnnnyyyy-mm-dd-hh.tt.ss.bbb, where:
 - SAS** - Identifies these as SOVA initiated locators.

- **nnn** - sequence number assigned internally by SOVA.
 - **yyyy-mm-dd** - Date the validation took place in year-month-day format.
 - **hh.mm.ss.bbb** - Time of day in hour-minute-second-millisecond format.
- The "Run Date" column contains a SOVA generated numeric field that uniquely identifies the run date and time the validation was processed. This identifier presents the date - time information in a more user friendly format for later reference. The format of the field is yyyy-mm-dd-hh.tt.ss.bbb, where:
 - **yyyy-mm-dd** - Date the validation took place in year-month-day format.
 - **hh.mm.ss.bbb** - Time of day in hour-minute-second-millisecond format.
2. Order Validation Details Section of the Results Screen
- The "Message ID" column identifies each unique message. The many possible Messages can be grouped and described by type, as follows:
 - **Message type SOVnnnn** - where nnnn is a message identifier number. These messages indicate a condition that was detected by the SOVA Application and do not necessarily imply a problem with details of the order itself. Conditions detected may be for information only or may indicate a fatal error (CFReport must not be submitted.) Some error conditions may have prevented further processing of the validation against manufacturing rules. Action may be needed before a total validation can be done.
 - **Message type SUPnnnn** - where nnnn is a message identifier number. These messages indicate a condition that was detected by the Manufacturing Order Validation Rules accessed by SOVA. They generally indicate a condition with details of the order. Conditions detected may be for information only or may indicate a fatal error (order must not be submitted.) Fatal errors of this type will require changes to the order details and subsequent processing through the configurator and SOVA.
 - The "Severity Code" column indicates which errors are serious.
 - **Severity Code E (Error)** - indicates a serious (fatal) error where action must be taken before the order process can continue. Any row containing a Severity Code E error will cause the overall Order Validation Result to be "Did not pass."
 - **Severity Code I (Information)** - indicates a condition that you may want to investigate before you continue to process this order. Additional information unique to the specific order being validated is shown in the message. You should review this information to verify that it reflects your understanding of order details or conditions under which the validation was performed. Information type messages can be ignored once unique details of the message have been verified.
 - **Severity Code W (Warning)** - indicates that although there were no errors involved in this order, there may be conditions which might lead to problems further in the process. It is recommended to resolve those problems and resubmit your order.
 - The "Message Text" column contains specific details about the order being validated. The information in this column will help the user understand what specifically caused the condition - messages with the same identifier (first column of the Validation Results screen) may have different message text depending on details of the order being validated.

Results of the validation are displayed in the Order validation result section of the SOVA validation results screen.

- “Pass” indicates the absence of any "E" type errors detected in the order and the validation was completed. The order can be submitted.
- “Did not pass” indicates that there are one or more "E" type errors that need resolution. If no SOV1002 or SOV1007 message is posted, the validation also did not run to completion and there may be other problems with the order not posted in the Order validation details.
- Warning indicates that there are no errors but it is recommended that some conditions be resolved before further processing occurs.

SOVA Help Functions available on the “Submit” and “Result” displays:

- SOVA User Guide - an option to display the online SOVA User Guide
- SOVA Online Education - option to present an overview summary of SOVA.

Message Type	Condition	Status	ERP System	Action
Pass	Green	Pass	Go	None
Warning	Amber	Pass	Hold	Review
Did Not Pass	Red	Fail	Hold	Correct and Resubmit

- Feedback - option used to send e-mail to the SOVAOPS@us.ibm.com e-mail id for problem resolution or investigation.
- Printable version - capability to print your results.
- Save to File - option to save your SOVA results to a file.

Understanding Details of the SOVA Validation Results

Because SOVA is a validation tool, most messages posted on the SOVA Validation Results screen are a normal outcome of SOVA operation. Interpretation and resolution of SOVA output messages is an integral part of SOVA operation. The SOVA validation results contain three types of messages: "E" ("E" = Error), "I" ("I" =Information) and 'W' ('W'= Warning). All "E" messages indicate a fatal error - the order should not be submitted without further action. Some "E" messages indicate a failure of SOVA to operate correctly. These may require outside assistance to resolve. Most "E" messages are validation results that indicate a problem with the order being validated. See the following Troubleshooting Section for detailed message explanation.

Troubleshooting Section

SOVA Messages

SOVA messages can appear before, during or after SOVA is validating an order. Messages appearing before or during SOVA validation completion require some resolution activity before validation can be completed.

[The Custom Quickship function has been withdrawn in the US. Checks will no longer be performed by SOVA.](#)

SOVA General Messages

Table 1. Messages Sorted by Message ID	
SOVA Message	Recommended Action
File not found. Please select a valid file and resubmit.	The CFReport file listed in the Browse field can not be found. Verify that the file listed is valid by opening it.
-Unable to send message to backend for validation. -Unable to parse request: Unknown part type found. -Unable to determine or invalid report format. -An error occurred and we were unable to validate your order.	SOVA detected a problem in the SOVA application itself. Click the Submit button again. If the message reappears, select the FEEDBACK option to SOVAOPS@us.ibm.com.
Request timed out or was unable to be processed by SOVA n: nnnn	SOVA detected a problem in the SOVA application itself. Click the Submit button again. If the message reappears, record the numbers n: nnnn included in the message and select the FEEDBACK option to SOVAOPS@us.ibm.com.
The file you submitted is too large for SOVA to process.	The validation checking portion of SOVA operation will take an excessive amount of time and was not started. To validate an order that consistently results in this message: <ol style="list-style-type: none"> 1. Prepare select the FEEDBACK option to SOVAOPS@us.ibm.com. 2. Attach the CFReport of the order you wish to validate. 3. Explain that an order validation was attempted that resulted in a "too large" error and request that the order be validated using SOVA. 4. Include an e-mail address where the SOVA results can be returned. Using the CFReport provided, SOVA will be run and the results returned to the requestor via e-mail. Allow a few hours or overnight for processing

User Guidance

PIP Users

If you submit orders using PIPs, please ensure that you do not edit the PIP to add or remove content after using the configurator. If you do this SOVA audits the PIP and will detect a mismatch and generate error messages. If you must make changes to the order, please go back and adjust the order in the configurator, then pull the CFReport into the PIP. This way the CFReport and PIP will match.

Freeform Users

If you submit orders using Freeform orders, you should know that these orders fail at a higher rate than those that have used a configurator. Please ensure the following:

- Use the configurator to ensure your order has all the needed pre-requisites and co-requisites products and feature codes.
- Pay careful attention if the order is an Initial order or an MES order.
 - Certain feature codes are only allowed to be ordered with an Initial order; others can only be ordered with an MES; some can be ordered as both
- Take care to not order duplicate feature codes also called duplicate sub line items; if this happens, message SOV6011 will be generated.

General Usage Tips

These are general SOVA usage tips:

- Please download and use the latest level of the configurator. This will ensure that you have the latest level of function and fixes. If the latest level of configurator is not used, you will receive the SOV1002 message.
- If you receive a SOV1004 Locking Flag message it means that the CFReport was locked by the configurator. You must re-run the configuration and satisfy the requirements identified by the configurator to unlock the CFReport.
- Verify the withdrawal dates for the products to ensure they are still available.
- If you receive an SUP4000 message, submit a configurator defect if a problem is found in the configurator. Otherwise contact SOVAOPS@us.ibm.com for assistance.
- If you receive a parsing or checksum error, it means that the order has been edited in an illegal way and further processing is not possible.

SOVA Messages During and After Validation Operation

The following is a detailed explanation of every error that can appear on the SOVA Validation Result screen and what can be done to resolve it. A brief summary of each error is also presented in a table format. The letter in parentheses (E, I or W) indicates whether the message is for a fatal (E = Error) error or for information (I = Information) or for a warning (W=warning.)

- **Message SOV0001 (E)** occurs when the SOVA application detects a problem with the structure of the submitted CFReport (parsing error.) Order validation can not be performed. The CFReport may have been corrupted or damaged. This typically occurs when a file has been submitted that is not a CFReport or a CFReport has been submitted that is not from a configurator (type or version) intended for SOVA. User can only continue by submitting a different file that is a valid CFReport. Verify that the submitted file is a CFReport from a configurator that is approved for use with SOVA. Rerun the configurator and SOVA. If the message reappears, select the FEEDBACK option to SOVAOPS@us.ibm.com. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV0004 (W)** occurs when the validation checking portion of SOVA operation took an excessive amount of time (job length error.) The validation was not allowed to run to completion. Because no order validation errors are posted unless the validation is completed, the order may contain validation errors even though they are not posted. Validation time is almost entirely dependent on the complexity and size of the order being validated. To validate an order that consistently results in message SOV0004, follow these steps:
 1. Verify that no error has been made in the entry of the order details. Specially note the quantities.
 - Rerun the configurator and SOVA, if necessary.
 1. Record the SOVA Record Locator in the SOVA Validation Results chart on the SOVA Validation Results screen.
 2. e-mail the SOVA Operations Manager by selecting the FEEDBACK option to SOVAOPS@us.ibm.com and give the following information:
 - Explain that an order validation was attempted that resulted in a SOV0004 error. State the Record Locator identifier. It is not necessary to provide the CFReport - SOVA can find the order with the record locator.
 - Request that the order be validated using SOVA.
 - Include an e-mail address where the SOVA results can be returned.

Using the Record Locator provided, SOVA will be run and the results returned to the requestor via e-mail. Allow a few hours or overnight for processing. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.

- **Message SOV0005 (E)** occurs when SOVA detects a problem internal to SOVA (NewC Thread error.) The problem may be caused by unique order content or by the SOVA application itself. Order validation can not be completely performed. The validation was not allowed to run to completion. Because no order validation errors are posted unless the validation is completed, the order may contain validation errors even though they are

not posted. Rerun the configurator and SOVA. If the message reappears, select the FEEDBACK option to e-mail the SOVA Operations Manager, SOVAOPS@us.ibm.com you may be instructed to submit the order without SOVA validation. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.

- **Message SOV0006 (E)** occurs when SOVA cannot read the CFReport or CFXML input due to a corrupted file or invalid use. Recommendation is to investigate the problem and rerun in SOVA. If problem persists contact SOVAOPS@us.ibm.com.
- **Message SOV0007 (E)** occurs when SOVA detects a problem internal to SOVA (System error.) The problem may be caused by unique order content or by the SOVA application itself. Order validation can not be completely performed. The validation was not allowed to run to completion. Because no order validation errors are posted unless the validation is completed, the order may contain validation errors even though they are not posted. Rerun the configurator and SOVA. If the message reappears, select the FEEDBACK option to send e-mail to SOVAOPS@us.ibm.com. You may be instructed to submit the order without SOVA validation. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV0009 (E)** occurs when the SOVA application detects a problem with the structure of the submitted CFReport (CFReport '99' record is not found.) Order validation can not be performed. The CFReport may have been corrupted or damaged. This typically occurs when a file has been submitted that is not a CFReport; or a CFReport has been submitted that is not from a configurator (type or version) intended for SOVA. The order should not be submitted. User can only continue by submitting a different file that is a valid CFReport. Verify that the submitted file is a CFReport from a configurator that is approved for use with SOVA. Rerun the configurator and SOVA. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV0011 (W)** occurs when SOVA detects a problem internal to SOVA (input message object creation error.) The problem is caused by the SOVA application itself. Order validation can not be completely performed. The validation was not allowed to run to completion. Because no order validation errors are posted unless the validation is completed, the order may contain validation errors even though they are not posted. Rerun SOVA. If the message reappears, select the FEEDBACK option to send e-mail to SOVAOPS@us.ibm.com. You may be instructed to submit the order without validation through SOVA. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV0012 (E)** occurs when SOVA detects a problem internal to SOVA (inbound message data error.) The problem is caused by the SOVA application itself. Order validation can not be completely performed. The validation was not allowed to run to completion. Because no order validation errors are posted unless the validation is completed, the order may contain validation errors even though they are not posted. Rerun SOVA. If the message reappears, select the FEEDBACK option to send e-mail to SOVAOPS@us.ibm.com. You may be instructed to submit the order without SOVA validation. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.

- **Message SOV0013 (W)** occurs when SOVA detects a problem internal to SOVA (internal access error.) The problem is caused by the SOVA application itself. Order validation can not be completely performed. The validation was not allowed to run to completion. Because no order validation errors are posted unless the validation is completed, the order may contain validation errors even though they are not posted. Rerun the configurator and SOVA. If the message reappears select the FEEDBACK option to send e-mail to SOVAOPS@us.ibm.com. You may be instructed to submit the order without SOVA validation. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV0015 (E)** occurs when the SOVA application detects a problem with the structure of the submitted CFReport (CFReport '95' record is not found.) Order validation can not be performed. This error message only occurs when an upgrade order (MES) has been submitted and the contents of the currently installed (before upgrade, or history) system is not complete. An upgrade order can not be processed unless the base, history, currently installed system content is known. This can occur when a CFReport is incomplete, has been corrupted or an upgrade has been erroneously indicated. User can only continue by submitting a CFReport file that contains the history of the system that is to be upgraded. If the message reappears, select the FEEDBACK option to e-mail the SOVA Operations Manager, SOVAOPS@us.ibm.com. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV0016 (E)** occurs when the SOVA application detects a problem with the structure of the submitted CFReport. Order validation can not be performed. This error message only occurs when an upgrade order (MES) has been submitted and the contents of the currently installed (before upgrade, or history) system is not complete. An upgrade order can not be processed unless the base, history, currently installed system content is known. This can occur when a CFReport is incomplete, has been corrupted or an upgrade has been erroneously indicated. User can only continue by submitting a CFReport file that contains the history of the system that is to be upgraded. If the message reappears, call your normal support resource for e-config product definition problems (Techline.) Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV0017 (W)** occurs when SOVA detects a problem internal to SOVA (Input/Output error writing to the SOVA file system.) The problem is caused by the SOVA application itself. Order validation can not be completely performed. The validation was not allowed to run to completion. Because no order validation errors are posted unless the validation is completed, the order may contain validation errors even though they are not posted. Rerun the configurator and SOVA. If the message reappears, select the FEEDBACK option to send e-mail to SOVAOPS@us.ibm.com. You may be instructed to submit the order without SOVA validation. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV1001 (E)** occurs when the SOVA application detects a problem with the content of the submitted CFReport (version field, position 3-4, of the CFReport '00' record is not 30 or 31.) Order validation can not be performed. The CFReport may have been corrupted or damaged. This typically occurs when a file has been submitted that is

not a CFReport version intended for SOVA. The order should not be submitted. User can only continue by submitting a different file that is a valid CFReport. Verify that the submitted file is a CFReport from a configurator that is approved for use with SOVA. Rerun the configurator and SOVA. If the message reappears, call your normal support resource for e-config product definition problems (Techline.) Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.

- **Message SOV1003 (E)** occurs when the CFReport has been manually altered or corrupted. When a CFReport is created, a hash total (CHECKSUM) is calculated based on all the characters that make up the CFReport. This CHECKSUM is part of the CFReport (positions 3-12 of the '99' record.) SOVA recalculates this CHECKSUM (based on the CFReport contents) and compares it to the CHECKSUM in the CFReport. If additions, subtractions or changes had been made to the CFReport without recalculating and reentering this number, SOVA will detect the mismatch. The SOV1003 message typically occurs when a CFReport has been directly modified by manipulating the contents of the file without rerunning the configurator. The order should not be submitted. Rerun the configurator (include the intended changes to the order) and rerun SOVA. Some earlier CFReport versions did not calculate a CHECKSUM, so not all CFReports are checked. Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV1004 (E)** occurs when the CFReport has been marked as "locked" (locking flag, nonzero character in position 39 of the '00' record, is set) by the configurator that generated the CFReport. Typically, this occurs when the Customer Requested Arrival Date (CRAD) is before General Availability of an order item; when the configuration is not completely validated; when an order was not priced or is not orderable. The order should not be submitted and SOVA should not be rerun until the configurator validation is complete using a proper CRAD date. If the message reappears, call your normal support resource for e-config product definition problems (Techline.) Severity code is always E and message content is always the same. Rule number, Partial system flag and Element id are always blank.
- **Message SOV1010 (I)** occurs when the SOVAOPS@us.ibm.com id executes a long running CFReport requested by the user.
- **Message SOV2000 (W)** - occurs when either the machine type/model or machine type feature code have been withdrawn. SOVA tables have been updated with the withdrawn date.
- **Message SOV2002 (I)** – occurs when a non US order contains a software feature that contains a quantity of zero.
- **Message SOV2003 (I)** - occurs when a SOVA audit flags a product indicating that it is an On Demand Order and requires contract verification prior to submitting the order to IBM.
- **Message SOV2004 (W)** - will occur during the processing of a 3Y4PIP. Each machine type model that required the use of a configurator, where the PIP does not contain a CFR BLOB, will result in a Warning message to the user.
- **Message SOV2005 (I)** - If none of the machine type models require the use of a configurator (and there is not a CFR BLOB), SOVA will return a message to the user.

- **Message SOV2008 (I)** - technical validation cannot be performed because a configurator was not used to place this MES order. Machine data history is not available.
- **Message SOV2009 (E)** - occurs when a machine type model is not a valid US product. The machine type model-feature table will be queried using machine type, model, and country (feature is not compared.)
- **Message SOV2010 (W)** - occurs when each of the machine type model features/RPQs are audited by a table look-up using machine type, model, feature, and country (discrete match.) If a match is not found, the look-up will be performed using machine type, feature, and country (essentially using a wildcard for model.) For each machine type model-feature that is not valid for the country, this error message will result. This message will result also when the order type in the table does not match the SOVA input. (Example: order type = MES; SOVA input is initial order.)
- **Message SOV2011 (W)** - For each machine type model that is changing model on the order that requires the valid items audit, checks will be performed to ensure it is valid for the country it is ordered. If a match is not found in the table, this message will be returned (and the features for this model change will not be audited.)
- **Message SOV2012 (W)** - occurs for each feature conversion this is not valid for the country. Each feature conversion will be audited by a table look-up using 'from machine type', 'from feature', 'to machine type', 'to feature', and country.
- **Message SOV2013 (W)** - will occur if the feature/RPQ is flagged as needing approval. All add features/RPQs (straight add, add within a conversion, or add within an exchange) will be audited by checking the data table, using only machine type and feature/RPQ for the lookup, to check if approval is required.
- **Message SOV2014 (I)** - will occur when an order is not Quickship eligible. The machine type model is not in the current SOVA Quickship Table. The SOVA Quickship table is updated periodically.
- **Message SOV2015 (W)** - occurs when an ordered product is not Build and Hold eligible. The product is not currently in the SOVA Build and Hold table. The table is updated every quarter.
- **Message SOV2016 (W)** - occurs when there is a mismatch between the order type sent from the reference data hub and the input to SOVA. Order type can be initial, MES with the SOVA table being initial, MES or Both.
- **Message SOV2017 (W)** – occurs when a Software Maintenance Agreement (SWMA) is missing in the order. The missing SWMA could be a registration or renewal agreement. Please investigate and ensure that a SWMA is on the order otherwise the order will have issues further down the order process.
- **Message SOV2018 (W)** – occurs when an High End CRAD is identified in a Build and Hold order. Approval is needed before continuing. High End Crad is updated quarterly.
- **Message SOV2019 (W)** – occurs when CoD features are in the order. Contracts need to be signed by the Business Partner before proceeding. The CoD audited list will be updated with new products periodically.
- **Message SOV3001 (E)** - occurs when there is a configuration issue with the feature conversion or the feature exchange functions. The required features for add or remove functions are missing. Please investigate and resubmit the input into SOVA. If problem persists, please contact SOVAOPS@us.ibm.com.

- **Message SOV6011 (E)** - will occur when an order contains duplicate sub line items. This pertains to feature add, remove, exchange, and conversion.
 - **Message SUP4000 (E)** occurs when a severe error was found in the order validation. The message identifier is always an E (Error) and indicates that order modifications are needed before the order can be submitted. The format and fixed part of the message text is "component MFTttttmmm-ffff failed validation rule rrrrrrrrrr description: aaaaaaaaaaaaaaaaaaaaaa." The variables are:
 - tttt is the machine type; mmm is the model number; ffff is the feature code.
 - rrrrrrrrrr is the NewC validation rule identifier and is typically a mixed alphanumeric field.
 - aaaaaaaaaaaaaaaaaaaaaa is the detailed explanation of the validation rule that has been violated. This written description of the problem is the key indicator to the changes that must be made to allow this order to be built.
- Rule number is always SRHC. The contents of this field are taken directly from NewC (manufacturing order validation system.) Partial System Flag may be C (Complete) or U (incomplete.) The contents of this field are taken directly from the manufacturing order validation system.

Identifying Order Problem Causes

The following is intended to assist in diagnosing the root cause of the Message SUP4000 errors so that the order can be modified:

1. The best clues to the source of a problem are the model numbers (usually abbreviated mod) and feature codes (usually abbreviated F/C) listed in the error description.
2. If you see exactly the same Message SUP4000 error repeated “n” times, look for an order item with that quantity (n). In other words, use the number of times a message is repeated as a clue to which order item may need resolution.

General Message Information

SOVA messages that indicate an order problem should not be taken lightly. If you get any validation result messages with a severity of E (Error), there is a good chance that this order will not be able to be built. Subsequent changes to the order most likely will affect any order price proposals and will require a review with the customer.

In some extraordinary situations, the configurator or SOVA may erroneously indicate a problem with an order that is otherwise good. On rare occasions, a user may be instructed by SOVA support people to submit an order even though SOVA indicates an order error. There are a set of apparent Validation Results problems that are beyond the scope of SOVA to accurately describe. Because of complex placement and interdependency rules, the factory order validation system can not completely automate the validation of all orders. When such an error message is encountered, the message can be ignored. If these are the only fatal error messages, the order

can be submitted for processing. The manufacturing order process will handle these orders on an exception basis at the factory.

SOVA Results Messages Summary

Table 2. SOVA Results Message Summary			
Result Message	Meaning of Message	Probable Cause	Suggested Action
Pass	Order can be forwarded	No order problems that would cause manufacturing problems	Forward order to Order System
Did Not Pass	Order must not be forwarded	Order has problems that would cause order to fail in Manufacturing	<ol style="list-style-type: none"> 1. Review SOVA Severity "E" Validation Details Messages 2. Modify order following recommended action 3. Rerun configurator 4. Rerun SOVA

Validation Details Messages Summary

Table 3. Part 1 - Validation Details Messages Summary					
Message Identifier	Severity Code	Message Text	Meaning of Message	Probable Cause	Suggested Action
SOV0001	E	We are not able to read the CFReport you provided.	CFReport damaged.	Data corruption or transmission problem.	Rerun SOVA with changed or different CFReport.
SOV0004	W	This job has exceeded the 5 minute time limit for execution.	Validation checking took too long.	Configuration being validated was excessively large or complex.	Verify no error was made in order entry. Select the FEEDBACK option to e-mail to SOVA Operations SOVAOPS@us.ibm.com to validate, "SOV0004 error occurred on Record Locator SASnnn...". Results returned via e-mail.
SOV0005	E	We are not able to read the specific product information in the CFReport you provided.	CFReport format or content damaged; Unique order content	Data transmission or corruption problem; Configuration rules do not exist.	Verify configurator input; rerun configurator and SOVA. Select the FEEDBACK option to e-mail to SOVAOPS@us.ibm.com if message repeats.
SOV0006	E	XML parsing error	SOVA cannot read the CFXML	Corrupted file or invalid use.	Investigate the problem and rerun in SOVA. If problem persists contact SOVAOPS.
SOV0007	E	SOVA application error. Order validation cannot be completely performed.	CFReport format or content damaged; Unique order content	Data transmission or corruption problem; Configuration rules do not exist.	Verify configurator input; rerun configurator and SOVA. Select the FEEDBACK option to e-mail to SOVAOPS@us.ibm.com if message repeats.
SOV0009	E	This is not a valid CFReport. We are unable to check the data integrity.	Not a CFReport or CFReport damaged.	Wrong file used, CFReport corrupted. Missing 99 record.	Rerun SOVA with changed or different CFReport.

Table 3. Part 2 - Validation Details Messages Summary

Message Identifier	Severity Code	Message Text	Meaning of Message	Probable Cause	Suggested Action
SOV0011	W	SOVA application error. SOVA is not able to create an input message object.	SOVA Application problem.	SOVA Hardware or Software failure.	Rerun SOVA. Select the FEEDBACK option to e-mail to SOVAOPS@us.ibm.com if message repeats.
SOV0012	E	SOVA application error. SOVA is not able to read the message data.	SOVA Application problem.	SOVA Hardware or Software failure.	Rerun SOVA. Select the FEEDBACK option to e-mail to SOVAOPS@us.ibm.com if message repeats.
SOV0013	W	SOVA application error. SOVA is not able to access the CFReport.	SOVA Application problem.	SOVA Hardware or Software failure.	Rerun SOVA. Select the FEEDBACK option to e-mail to SOVAOPS@us.ibm.com if message repeats.
SOV0015	E	This is not a valid CFReport. Product identification record is not available.	History for Upgrade order not found; Not a CFReport or CFReport damaged.	CFReport incomplete or corrupted. Wrong file used. Missing 95 record.	Rerun SOVA with changed or different CFReport. Select the FEEDBACK option to e-mail to SOVAOPS@us.ibm.com if message repeats.
SOV0016	E	This is not a valid CFReport. The history records are not available.	History for Upgrade order not found; Not a CFReport or CFReport damaged.	CFReport incomplete or corrupted. Wrong file used. Missing the history records.	Rerun SOVA with changed or different CFReport. Call Techline if message repeats.
SOV0017	W	SOVA application error. There is an error writing to the SOVA file system.	SOVA Application problem.	SOVA Hardware or Software failure.	Rerun SOVA. Select the FEEDBACK option to e-mail to SOVAOPS@us.ibm.com if message repeats.
SOV1001	E	This is an unsupported CFReport format. SOVA only supports versions 30 and 31.	CFReport 00 record not 30 or 31. SOVA can not process orders from this configurator.	Input file not a CFReport; CFReport version not intended for SOVA.	Rerun order in configurator. Rerun SOVA. Call Techline if message repeats.

Table 3. Part 3 - Validation Details Messages Summary

Message Identifier	Severity Code	Message Text	Meaning of Message	Probable Cause	Suggested Action
SOV1003	E	This CFReport was modified using an unsupported tool or process.	Checksum in CFReport does not match SOVA calculated checksum.	CFReport has been modified or damaged after configurator run. CFReport must not be modified directly.	Modify configurator input; rerun Configurator, rerun SOVA.
SOV1004	E	This CFReport has been locked by the configurator. Please complete the configurator session and resubmit to SOVA.	Configurator set locking flag: CRAD before GA, configurator run incomplete, order not priced.	CRAD set too early, configurator operation ended early, no price option selected.	Validate that the CFReport is correct, rerun the configurator than resubmit SOVA.
SOV1010	I	SOVA validation results will be sent to SOVA support via e-mail.	Feedback option used.	Problems occurred or investigation needed.	None required.
SOV2000	W	Product has been withdrawn for machine type model / feature code.	The SOVA tables have been updated with a withdrawn date for a particular machine type / model or feature code.		
SOV2002	I	Software feature contains a quantity of zero.			Update quantity and resubmit through econfig.
SOV2003	I	Indicates that it is an On Demand Order	Audit finds this order in the SOVA Table.	Requires contract verification prior to submitting the order to IBM.	Resubmit SOVA input
SOV2004	W	Configurator not used to build the order	A PIP, which used a configurator must have a CFR Blob.	Update the PIP with a CFReport.	Resubmit SOVA input.
SOV2005	I	A message stating that none of the MTMs in the order require a configurator.	A configurator was not used to create this order.		Verify the message is correct.

Table3. Part 4 – Validation Details Messages Summary

SOV2008	I	A configurator was not used to create the MES order.	History data will not be available.		Create the MES using a configurator and resubmit into SOVA.
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SOV2009	E	MTM is not a valid US product.	The MTM is not setup as a US product in the SOVA Tables or is not a US product.	Probably not a US product.	If it is a US product ensure Country Code on CFReport is correct and Mtypes table shows US flag.
SOV2010	W	Feature and/or RPQ are not valid.	The feature or RPQ in the order are not valid.	Not identified in the SOVA Table as valid features/RPQ or order type differs from SOVA input.	Contact SOVAOPS @us.ibm.com- contact RDx regarding needed input.
SOV2011	W	Audit failed for changing model for a MTM.			Resubmit SOVA Input
SOV2012	W	Feature conversion not valid	From MTM/feature or To MTM/feature is not a valid product.	SOVA Tables not updated to reflect valid information.	Update SOVA Tables and resubmit SOVA Input.
SOV2013	W	MTM needs RPQ approval.	SOVA Tables show that the MTM needs RPQ approval.		Investigate RPQ approval issue and resubmit SOVA input if needed.
SOV2014	I	Order not Quickship eligible		Not in the SOVA Quickship Table.	If needed, add to the SOVA Quickship Table
SOV2015	W	Order not Build & Hold eligible.		Not in the SOVA Build & Hold Table.	If needed, add to the SOVA Build & Hold Table.
SOV2016	W	Order Type mismatch	RDx feed data does not match SOVA input		Contact SOVAOPS for resolution.
SOV2017	W	Missing SWMA	SW Maint Agreement missing on the order.		Review issue and ensure that a SWMA is on the order. Check announcement letter.
SOV2018	W	Build & Hold Config contains High End Crad .	Needs approval before continuing .	High End Crad for the quarter is audited.	Ensure approval .
SOV2019	W	Capacity on Demand products need contracts.	Cotract needed before continuing.	CoD products are audited.	Ensure contracts are signed.
SOV3001	E	Feature conversion or exchange error	Add or remove feature is missing	Check the input and resubmit	Contact SOVAOPS for resolution.
SOV6011	E	Order has duplicate sub line items		More than one sub line	Edit input to fix multiple sub line items and resubmit.

Table 3. Part 5 - Validation Details Messages Summary

Message Identifier	Severity Code	Message Text	Meaning of Message	Probable Cause	Suggested Action
SUP4000	E	Component MFTttttmmm-ffff failed validation rule rrrrrrrrrr description: aaaaaaaaaaaaaaaaaa a	Severe error found in order validation. Modifications needed before order submitted.	Variables are: tttt is the machine type; mmm is the model number; ffff is the feature code. rrrrrrrrrr is the NewC validation rule identifier and is typically a mixed alphanumeric field. aaaaaaaaaaaaaaaa is the detailed explanation of the validation rule that has been violated.	Problem description indicates changes needed.

Reference Material Section

Configuration Report (CFReport) Limitations for SOVA

SOVA operational limits prevent accepting CFReport file sizes greater than 1.5 Megabytes.

Appendix A. Definition of Terms

3Y4PIP – Partner Interface Process - a formatted file for ordering based on RosettaNet.

API – Application program Interface – a standard interface allowing connection and use of an application.

CFR – CFReport – Configuration report file - formatted file for ordering used by IBM.

CFR BLOB – CFReport Binary Large Object – the CFReport that is embedded in a 3Y4PIP.

CRAD - Customer Requested Arrival Date.

DASD - Direct Access Storage Device – a disk drive to store files.

ERP – Enterprise resource planning system – downstream ordering and administrative systems.

Hash Total - a number or check bit that is calculated based on the contents of a file or record. By recalculating the hash total based on file or record contents later, it can be determined if content has been altered.

MES - Miscellaneous Equipment Specification - the upgrade process that is used to add, delete or modify the contents of currently ordered or installed system. MES basically means upgrade. MES is also used to describe the physical contents (hardware, software, instructions) of an upgrade shipment.

MTM - Machine Type Model – IBM product orders must contain hardware and software "machine" types (4 numeric characters) and models (3 numeric, 3 alphabetic or 3 mixed alphanumeric characters.)

NA North America - the North American geographic service area.

NewC - New Configurator – the rule based Manufacturing configurator that determines how manufactured systems are built and tested.

RDx – reference data extract containing machine types, models, features, RPQs, withdraw dates, and Plant Only, MES, or Both orderability setting.

RPQ – Request for price quotation.

SOVA - Single Order Validation Application – the IBM order validation system.

URL – Uniform resource locator – internet link.

XML – Extensible markup language - type of markup language and file format used for ordering.