

NCR and CAPA

SYSPRO 8

Reference Guide

Published: October 2024



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NCR and CAPA

Exploring

Where it fits in?

NCR and CAPA (Non-conformance reporting and Corrective actions / Preventative actions) is a capability that forms part of the **Quality Management** module and can be used throughout the ERP process. It helps manufacturers and distributors control quality standards within their organization to ensure these are upheld and continually improved.

The corrective and preventative actions (CAPA) component of this feature enables the effective management of an incident that caused a deviation from quality standards. It allows any department to report and effectively manage, correct and prevent non-compliance incidents.

Benefits

- Compliance with industry standards
- Early detection of non-conformances
- Visibility into recurring issues and systemic problems.
- Decision making and risk management
- Efficiency and cost reduction
- Consistency and continuous improvement
- Customer satisfaction
- Empowerment by fostering an accountability culture

Functionality

The **NCR and CAPA** (Non-conformance reporting and Corrective actions / Preventative actions) functionality enables businesses to identify, document and address deviations from product or process standards.

- Non conformance details are captured in real time, which helps organizations take prompt corrective action, ensuring compliance with both internal and regulatory standards.
- Corrective and preventive actions are integrated with NCR to ensure corrective actions are implemented to resolve non conformances while preventative actions are established to prevent a re-occurrence.
- CAPA promotes continuous improvement that supports long term quality assurance by analyzing root causes and ensuring that solutions are systematically applied across the business.

Navigation

The programs related to this feature are accessed from the **Program List** of the SYSPRO menu:

- *Program List > Quality Management > Non Conformance Reporting*

Terminology

Cause category

In non-conformance reporting, cause categories help classify the risks or reasons behind non-conformances, enabling organizations to identify patterns and implement effective corrective actions. By categorizing the causes of non-conformances, organizations can better analyze trends, improve processes, and prevent future issues. Some common cause categories are:

- **Human Error**
Mistakes made by individuals during operations, such as miscommunication, inadequate training, or failure to follow procedures.
- **Process Failure**
Breakdowns or inefficiencies in established processes, including inadequate controls, insufficient procedures, or lapses in quality checks.
- **Material Deficiency**
Issues related to raw materials or components, such as substandard quality, improper specifications, or defects from suppliers.
- **Equipment Failure**
Breakdowns or malfunctions of machinery or tools, which may arise from inadequate maintenance, wear and tear, or design flaws.
- **Environmental Factors**
External conditions affecting production or product quality, including temperature, humidity, or contamination from the surroundings.
- **Design Issues**
Flaws in the design or specifications of a product that lead to non-conformance, such as incorrect dimensions or inadequate functionality.
- **Regulatory Non-Compliance**
Failures to meet legal or industry standards, resulting in products or processes that do not adhere to necessary regulations.
- **Documentation Errors**
Problems stemming from inadequate or incorrect documentation, such as missing instructions, outdated procedures, or incorrect labels.

Corrective Action

Corrective action forms part of the **NCR and CAPA** (Non-conformance reporting and Corrective actions / Preventative actions) functionality.

It refers to the methodology used to eliminate the root cause of a non-conformance and prevent it from happening again. It involves identifying the issue, analyzing its underlying cause, and implementing changes to processes, materials, or practices.

NCR activity area

Specific actions take place in the activity area in a non-conformance report, e.g. header, investigate root-cause, close-out, corrective actions, preventative actions and audit.

Non-conformance management

Non-conformance management refers to the process of identifying, documenting, and addressing deviations from established standards, specifications, or regulations within an organization.

It involves detecting instances where products, services, or processes fail to meet quality or compliance requirements, followed by corrective actions to prevent recurrence. Effective non-conformance management helps improve quality control, reduce risks, and ensure continuous improvement in operations.

Non-conformance process

The non-conformance process is a systematic procedure used by organizations to identify, document, analyze, and resolve deviations from established standards, specifications, or regulations.

This process typically involves several steps, including the initial detection of a non-conformance, the creation of a non-conformance report, root cause analysis, implementation of corrective and preventive actions, and verification of effectiveness. The goal of the non-conformance process is to ensure that issues are addressed promptly, preventing recurrence and promoting continuous improvement in quality and compliance.

Non-conformance report

A non-conformance report (NCR) is a formal document that is created when a deviation occurs against an standard.

The report identifies and records instances where products, processes, or services fail to meet specified quality standards or requirements. It outlines the nature of the non-conformance, including details such as the issue, its cause, and its impact. The NCR also serves as a tool for tracking corrective actions taken to address the problem and prevent its recurrence, ensuring continuous improvement and compliance.

Non-conformance standard

A non-conformance standard refers to the established criteria or benchmarks that define acceptable performance, quality, or compliance for products, services, or processes. When these standards are not met, it results in a non-conformance. The standard serves as a reference point for evaluating deviations and determining the necessary corrective or preventive actions to ensure alignment with industry regulations or internal requirements.

A non-conformance report (NCR) is created when a transaction deviates from the non-conformance standard.

Non-conformance types

Non-conformance types are used to describe the type of deviation that occurred, which could be the following:

- Product non-conformances occur when a product fails to meet specified quality or performance standards, such as dimensional inconsistencies or material fault. A type of product non-conformance could be a defect.
- Process non-conformances involve deviations in the execution of operational processes, leading to issues like incorrect procedures or failure to follow established protocols. A type of process non-conformance could be an incorrect product assembly.
- Regulatory non-conformances arise when operations or products do not comply with industry regulations or legal requirements, potentially resulting in fines or penalties.
- Supplier non-conformances occur when materials or components received from suppliers do not meet agreed-upon quality or specification standards.

Preventative action

Preventative action forms part of the **NCR and CAPA** (Non-conformance reporting and Corrective actions / Preventative actions) functionality.

It refers to the methodology used to implement proactive measures taken to eliminate potential causes of non-conformances before they occur. It involves identifying risks, analyzing potential issues, and implementing changes to processes or systems to prevent future problems. The goal is to avoid non-conformances by addressing vulnerabilities and improving overall quality and compliance ahead of time.

Priority

The priority of a non-conformance report indicates which report must be resolved first. This is calculated using the severity level and expected due date of non-conformance reports for an owner and department.

Quality policy

An organization typically creates a quality policy which, in part, defines the rules dictating when an NCR is required to be created, its severity, priority and required time-to-resolution. This quality policy will drive the configuration of the **Non Conformance Reporting** module.

Responsible Department

The responsible department in non-conformance reporting refers to the specific team or organizational unit that owns, or is accountable for addressing and resolving the identified non-conformance. This department is tasked with investigating the issue, implementing corrective or preventive actions, and ensuring that the problem does not recur. The responsible department is typically selected based on the ownership of the standard raised against the NCR, ensuring that relevant expertise and resources are applied to resolve the issue effectively.

Severity level

Severity levels are set against the standard within the **NCR and CAPA** (Non-conformance reporting and Corrective actions / Preventative actions) functionality. The following severity levels categorize the impact and help prioritize actions and resources based on the severity and urgency of a non-conformance:

- **Critical**

A non-conformance that poses a significant risk to safety, regulatory compliance, or product functionality, often requiring immediate corrective action. Critical issues can halt operations or lead to severe consequences.

- **Major**

A serious non-conformance that impacts product quality or processes but does not pose immediate safety risks. While not as urgent as critical issues, major non-conformances still require prompt action to prevent further problems.

- **Minor**

A less severe non-conformance that has minimal impact on product quality or performance. It may not require immediate correction but should be addressed to avoid potential escalation into larger issues.

- **Log only**

Minor deviations that do not impact quality, safety, or compliance. These are often recorded for tracking purposes but typically do not require corrective actions.

Time to Resolution (TTR)

The time to resolution (TTR) refers to the total time taken from the identification of a non-conformance to its complete resolution. This metric tracks the duration required to investigate the issue, implement corrective or preventive actions, and verify that the problem has been effectively



addressed. TTR is used to measure efficiency in handling non-conformances and is critical for maintaining quality, compliance, and operational performance.

Starting

Prerequisites

To use this feature, the following setup option(s) must be enabled:

Setup Options

To use this feature, the following setup option(s) must be enabled:

Manufacturing Keys

Setup Options > Keys > Manufacturing

- Next NCR number
- Suppress leading zeros
- Presentation length

Electronic Signatures

To use this feature, the following eSignatures must be defined accordingly in the **Electronic Signature Configuration Setup** program (as this allows for the various functions in the related programs):

- NCR Change Severity Level
- NCR Add Non Conformance Report
- NCR Change Non Conformance Report
- NCR Add Process
- NCR Change Process
- NCR Delete Process
- NCR Add Standard
- NCR Change Standard
- NCR Delete Standard
- NCR Add Type
- NCR Change Type
- NCR Delete Type
- NCR Add Process Per Standard
- NCR Delete Process Per Standard
- NCR Add Cause Category
- NCR Change Cause Category

- NCR Delete Cause Category
- NCR Add Department Stakeholder
- NCR Change Department Stakeholder
- NCR Delete Department Stakeholder
- NCR Add Department
- NCR Change Department
- NCR Delete Department
- NCR Add Action
- NCR Change Action
- NCR Delete Action

Licensing

To use this feature, the following module(s) must be installed according to the terms of your software license agreement:

- Quality Management

Security

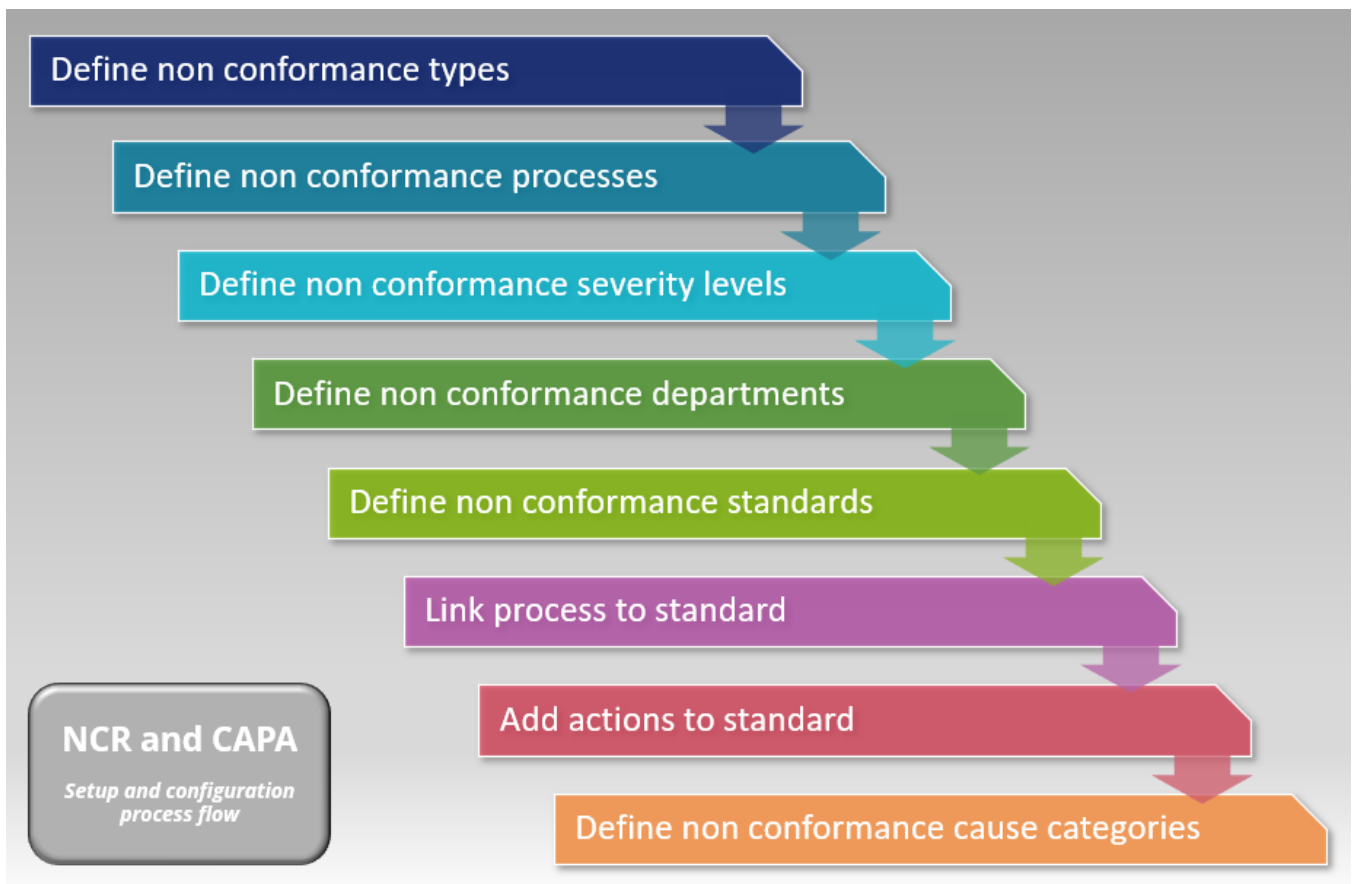
You can secure this feature by implementing a range of controls against the affected programs. Although not all these controls are applicable to each feature, they include the following:

- You restrict operator access to *activities* within a program using the **Operator Maintenance** program.
- You can restrict operator access to the *fields* within a program (configured using the **Operator Maintenance** program).
- You can restrict operator access to *functions* within a program using passwords (configured using the **Password Definition** program). When defined, the password must be entered before you can access the function.
- You can restrict access to the eSignature *transactions* within a program at operator, group, role or company level (configured using the **Electronic Signature Configuration Setup** program). Electronic Signatures provide security access, transaction logging and event triggering that gives you greater control over your system changes.
- You can restrict operator access to *programs* by assigning them to groups and applying access control against the group (configured using the **Operator Groups** program).
- You can restrict operator access to *programs* by assigning them to roles and applying access control against the role (configured using the **Role Management** program).

Using

Process

Setup and configuration process flow



1. Define the non conformance types using the **Non Conformance Type¹** program.
2. Define the process that will be followed once a non-conformance is raised using the **Non Conformance Process²** program.
3. Define the severity levels that will apply to the non conformance using the **Non Conformance Severity Level³** program.
4. Use the **Non Conformance Department⁴** program to define the departments that will own, address and resolve the non conformance issue, and to add both the default and any other necessary stakeholders for each department.

¹Program: SQMPTM

²Program: SQMPRS

³Program: SQMPLV

⁴Program: SQMPDP

5. Define the non conformance standard using the **Non Conformance Standard¹** program by linking the type, severity level and departments to the standard.
6. Link the process to the standard using the **Non Conformance Process Per Standard²** program
7. Link the corrective and preventative actions to the standard using the **Non Conformance Standard Actions³** program.
8. Define the cause categories into which the non conformance incidents can be grouped using the **Non Conformance Cause Category⁴** program.

¹Program: SQMPSN

²Program: SQMPSS

³Program: SQMPSA

⁴Program: SQMPCC

Non conformance incident process flow



1. Identify a non-conformance incident either by observation, some information on a report or dashboard that highlights an anomaly or via an automatic trigger that is supported by VBScripting.
2. Create the non-conformance report using the **Non Conformance Report Maintenance¹** program.
3. The following processes run concurrently once the NCR is created, and can be started or completed separately. All the steps in this section are maintained using the **Non Conformance Report Maintenance²** program
 - a. Record the details of the investigation in the **Investigate Root-cause** tab of the program.
 - b. Once all details have been captured, the NCR can be closed using the **Closeout** tab of the program.
 - c. Once the root cause of the NCR is known, you can define the corrective actions that must be implemented. This can be captured on the **Corrective Actions** tab of the program.
 - d. Specify the preventative actions that must be carried out within the **Preventative Actions** tab of the program.

¹Program: SQMPRT

²Program: SQMPRT

- e. Once all plans and action are completed the NCR is audited and the **Audit** section of the NCR is updated.



No other actions can be recorded during the audit phase.

- f. The **Non Conformance Cost Review**¹ program can be used throughout the process to report on costs relating to the non-conformance incident.
- g. The **Non Conformance Report** report can be used during the process to determine:
- the next NCR a stakeholder should address, and
 - the next stakeholder who should address the NCR.

¹Program: SQMPCT

Affected programs

The following indicates areas in the product that may be affected by implementing this feature:

Setup programs

Non Conformance Severity Level

Program List > Quality Management > Non Conformance Reporting > Setup

This program define and configure the severity levels assigned to a non-conformance report (NCR).

The severity configuration dictates the processes that must be followed for each NCR. The severity level is linked to specific non-conformance standards that trigger the creation of an NCR.

Non Conformance Type

Program List > Quality Management > Non Conformance Reporting > Setup

This program lets you create and maintain the types of deviation that could occur, e.g. a defect.

Non Conformance Cause Category

Program List > Quality Management > Non Conformance Reporting > Setup

This program lets you create and maintain the causes of non-conformances, so that you can prevent future issues, analyze trends and ultimately improve processes.

Non Conformance Process

Program List > Quality Management > Non Conformance Reporting > Setup

This program lets you attach or link a method to the NCR to document in which business process the non-conformance occurred. This is done for reporting purposes to identify trends.

Non Conformance Process Per Standard

Program List > Quality Management > Non Conformance Reporting > Setup

This program lets you apply a default process against an NCR standard.

Non Conformance Standard

Program List > Quality Management > Non Conformance Reporting > Setup

This program lets you create a standard against which a non-conformance report can be raised.

Non Conformance Standard Actions

Program List > Quality Management > Non Conformance Reporting > Setup

This program lets you define the actions that will be applied to a non-conformance report that is created when a deviation occurs from a non-conformance standard.

Non Conformance Department

Program List > Quality Management > Non Conformance Reporting > Setup

This program lets you define the departments that own non-conformances and are accountable for addressing and resolving these. It controls the functions which each stakeholder can carry out within the department.

Transaction Processing programs

Non Conformance Report Maintenance

Program List > Quality Management > Non Conformance Reporting > Transaction Processing

This program lets you create and maintain non-conformance reports.

Batch programs

Non Conformance Cost Review

Program List > Quality Management > Non Conformance Reporting > Transaction Processing

This program lets you review detailed costs associated with maintenance jobs linked to corrective and preventative actions.

Non Conformance Report Review

Program List > Quality Management > Non Conformance Reporting > Transaction Processing

This program lets you review details of non-conformance reports.

Report programs

Non Conformance Report

Program List > Quality Management > Non Conformance Reporting > Reports

This program lets you generate a list of non-conformance reports.

Browse programs

Stakeholders

Accessible from the **Browse** fields against various stakeholders within the **Non Conformance Department¹** program.

This program lets you view and select from a list of stakeholders.

Stakeholders for Non Conformance Report

Accessible from the **Browse** field within the **Non Conformance Report Maintenance²** program.

This program lets you view all stakeholders that have been assigned activities against a non-conformance report.

¹Program: SQMPDP

²Program: SQMPRT

Affected business objects

The following indicates the business objects that are affected by this feature:

Setup objects

Severity Level Setup

The **SEVERITY LEVEL SETUP**¹ business object lets you define and configure the severity levels assigned to a non-conformance report (NCR).

Non-Conformance Standard Setup

The **NON-CONFORMANCE STANDARD SETUP**² business object lets you create a standard against which a non-conformance report can be raised.

Non Conformance Plan Setup

The **NON CONFORMANCE PLAN SETUP**³ business object lets you define the action plan that will be applied to a non-conformance report that is created when a deviation occurs from a non-conformance standard.

Non-Conformance Type Setup

The **NON-CONFORMANCE TYPE SETUP**⁴ business object lets you create and maintain the types of deviation that could occur, e.g. a defect.

Non-conformance Process Setup

The **NON-CONFORMANCE PROCESS SETUP**⁵ business object lets you create and maintain the processes used to ensure compliance to the organization's chosen quality standards, maintain quality, and prevent the recurrence of quality issues.

NCR Process Per Standard Setup

The **NCR PROCESS PER STANDARD SETUP**⁶ business object lets you apply a default process against an NCR standard.

Non-conformance Cause Category Setup

The **NON-CONFORMANCE CAUSE CATEGORY SETUP**⁷ business object lets you create and maintain the causes of non-conformances, so that you can prevent future issues, analyze trends and ultimately improve processes.

¹Business object: SQMSSL

²Business object: SQMSTN

³Business object: SQMSPA

⁴Business object: SQMSTP

⁵Business object: SQMSPC

⁶Business object: SQMSPR

⁷Business object: SQMSCC

NCR Stakeholder Per Department Setup

The **NCR STAKEHOLDER PER DEPARTMENT SETUP**¹ business object lets you create and maintain the stakeholders applicable to each department.

Non-conformance Department Setup

The **NON-CONFORMANCE DEPARTMENT SETUP**² business object lets you define the departments that own non-conformances and are accountable for addressing and resolving these.

Transaction objects

Quality Management Document Maintenance

The **QUALITY MANAGEMENT DOCUMENT MAINTENANCE**³ business object lets you attach and maintain all documents used in the non conformance process.

Non Conformance Report Maintenance

The **NON CONFORMANCE REPORT MAINTENANCE**⁴ business object lets you create and maintain a non-conformance report when a deviation occurred from one of the non-conformance standards.

Query objects

Non conformance Report Review Query

The **NON CONFORMANCE REPORT REVIEW QUERY**⁵ business object lets you query and review a list of non-conformance reports.

Non conformance Report Query

The **NON CONFORMANCE REPORT QUERY**⁶ business object lets you query the information of a non-conformance report.

¹Business object: SQMSSH

²Business object: SQMSDP

³Business object: SQMTDC

⁴Business object: SQMTRP

⁵Business object: SQMQRV

⁶Business object: SQMQNR

Triggering NCRs with VBScripts

The following VBScript examples indicate how scripting can be used to trigger non-conformance reports for the listed events.



These VBScript examples must be configured to support your unique requirements and NCR configurations.

Procurement Triggers

Failed incoming inspection (Purchase order inspection)

```
' Sample VBscript triggered from PORPRI (PO Inspection)

' This script contains functions for form and field events.
' You must not modify the name of the functions.
Option Explicit

' Declare the variables to be used for processing
dim XMLOut, XMLParam, XMLDoc

Function QuantityRejected_OnSubmit()
    ' Call SQMTRP to record the deviation when inspected items have been rejected
    if QuantityRejected.CodeObject.Quantity <> 0 then
        call record_non_conformance_deviation()
    end if
End Function

' This function calls the functions that setup the SQMTRP XML documents (Parameter&XMLIn)
' and then proceeds to call the Business object for posting
Function record_non_conformance_deviation()

    ' Setup the XML parameters document
    call setup_xml_parameters()

    'Setup the XMLIn document
    call setup_xmlIn_doc()

    'Call SQMTRP to process and check for any errors on return
    on error resume next
    XMLOut = CallTrn("SQMTRP",XMLParam,XMLDoc,"Post","auto")
    if err then
        msgbox err.Description, vbCritical, "Calling Business Object"
        exit function
    end if

    ' Switch on error handling
    on error goto 0
End function

' This function sets up the XML parameters document
function setup_xml_parameters()
    XMLParam = XMLParam & " <?xml version='1.0' encoding='Windows-1252'?>"
    XMLParam = XMLParam & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLParam = XMLParam & " <!-- "
    XMLParam = XMLParam & "         Sample XML for the NCR Report Maintenance Post Business Object"
    XMLParam = XMLParam & " -->"
    XMLParam = XMLParam & " <PostNonConformance>"
    XMLParam = XMLParam & "     <Parameters>"
    XMLParam = XMLParam & "         <ActionType>A</ActionType>"
    XMLParam = XMLParam & "         <ValidateOnly>N</ValidateOnly>"
    XMLParam = XMLParam & "         <IgnoreWarnings>Y</IgnoreWarnings>"
    XMLParam = XMLParam & "         <ApplyIfEntireDocumentValid>N</ApplyIfEntireDocumentValid>"
    XMLParam = XMLParam & "     </Parameters>"
end function
```

```

XMLParam = XMLParam & " </PostNonConformance>"
end function

' This function sets up the XMLIn document
function setup_xmlIn_doc()
XMLDoc = XMLDoc & " <?xml version='1.0' encoding='Windows-1252'?>"
XMLDoc = XMLDoc & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
XMLDoc = XMLDoc & " <!-- "
XMLDoc = XMLDoc & "      Sample XML for the NCR Report Maintenance Posting Business Object"
XMLDoc = XMLDoc & " -->"
XMLDoc = XMLDoc & " <PostNonConformance>"
XMLDoc = XMLDoc & "   <Item>"
XMLDoc = XMLDoc & "     <LineAction>A</LineAction>"
XMLDoc = XMLDoc & "     <NcrNumber />"
XMLDoc = XMLDoc & "     <NcrDescription>PO lines failed inspection</NcrDescription>"
XMLDoc = XMLDoc & "     <NcrStandard>OTT</NcrStandard>"
XMLDoc = XMLDoc & "     <Owner>ADMIN</Owner>"
XMLDoc = XMLDoc & "     <Manager>PETER</Manager>"
XMLDoc = XMLDoc & "     <NcrProcess/>"
XMLDoc = XMLDoc & "     <LongDescription>PO items failed inspection and were subsequently rejected</LongDescription>"
XMLDoc = XMLDoc & "     <PotentialCauses>"
XMLDoc = XMLDoc & "       QuantityRejected.CodeObject.Description
XMLDoc = XMLDoc & "     </PotentialCauses>"
XMLDoc = XMLDoc & "     <Impact>Replacements needed from supplier and a return will be processed once goods have been
delivered</Impact>"
XMLDoc = XMLDoc & "     <Priority />"
XMLDoc = XMLDoc & "     <Complete />"
XMLDoc = XMLDoc & "     <Origin>"
XMLDoc = XMLDoc & "       <OriginateType>P</OriginateType>"
XMLDoc = XMLDoc & "       <OriginOrder>"
XMLDoc = XMLDoc & "         InspectionDetails.CodeObject.PurchaseOrder
XMLDoc = XMLDoc & "       </OriginOrder>"
XMLDoc = XMLDoc & "     </Origin>"
XMLDoc = XMLDoc & "     <eSignature>{36303032-3330-3031-3038-323434363433}</eSignature>"
XMLDoc = XMLDoc & "   </Item>"
XMLDoc = XMLDoc & " </PostNonConformance>"
end function

```

Incorrect shipment (Discrepancy in quantity)

```

' Sample VBScript triggered from WIPPIP (WIP Inspection maintenance) Scrap pane
' This script contains functions for form and field events.
' You must not modify the name of the functions.
Option Explicit

' Declare the variables to be used for processing
dim XMLOut, XMLParam, XMLDoc

Function Scrap_OnSubmit()
' Call SQMTRP to record the deviation when quantity of items scrapped exceeds
' 2 and the warehouse is "N"
if (Scrap.CodeObject.QuantityScrapped > 2 and WIPInspectionDetails.CodeObject.Warehouse = "N") then
call record_non_conformance_deviation()
end if
End Function

' This function calls the functions that setup the SQMTRP XML documents (Parameter&XMLIn)
' and then proceeds to call the Business object for posting
Function record_non_conformance_deviation()

' Setup the XML parameters document
call setup_xml_parameters()

' Setup the XMLIn document
call setup_xmlIn_doc()

' Call SQMTRP to process and check for any errors on return
on error resume next
XMLOut = CallTrn("SQMTRP",XMLParam,XMLDoc,"Post","auto")
if err then

```

```

        msgbox err.Description, vBCritical, "Calling Business Object"
        exit function
    end if

    ' Switch on error handling
    on error goto 0
End function

' This function sets up the XML parameters document
function setup_xml_parameters()
    XMLParam = XMLParam & " <?xml version='1.0' encoding='Windows-1252'?>"
    XMLParam = XMLParam & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLParam = XMLParam & " <!-- "
    XMLParam = XMLParam & "         Sample XML for the NCR Report Maintenance Post Business Object"
    XMLParam = XMLParam & " -->"
    XMLParam = XMLParam & " <PostNonConformance>"
    XMLParam = XMLParam & "     <Parameters>"
    XMLParam = XMLParam & "         <ActionType>A</ActionType>"
    XMLParam = XMLParam & "         <ValidateOnly>N</ValidateOnly>"
    XMLParam = XMLParam & "         <IgnoreWarnings>Y</IgnoreWarnings>"
    XMLParam = XMLParam & "         <ApplyIfEntireDocumentValid>N</ApplyIfEntireDocumentValid>"
    XMLParam = XMLParam & "     </Parameters>"
    XMLParam = XMLParam & " </PostNonConformance>"
end function

' This function sets up the XMLIn document
function setup_xmlIn_doc()
    XMLDoc = XMLDoc & " <?xml version='1.0' encoding='Windows-1252'?>"
    XMLDoc = XMLDoc & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLDoc = XMLDoc & " <!-- "
    XMLDoc = XMLDoc & "         Sample XML for the NCR Report Maintenance Posting Business Object"
    XMLDoc = XMLDoc & " -->"
    XMLDoc = XMLDoc & " <PostNonConformance>"
    XMLDoc = XMLDoc & "     <Item>"
    XMLDoc = XMLDoc & "         <LineAction>A</LineAction>"
    XMLDoc = XMLDoc & "         <NcrNumber />"
    XMLDoc = XMLDoc & "         <NcrDescription>Failed Work In Progress Inspections</NcrDescription>"
    XMLDoc = XMLDoc & "         <NcrStandard>OTT</NcrStandard>"
    XMLDoc = XMLDoc & "         <Owner>ADMIN</Owner>"
    XMLDoc = XMLDoc & "         <Manager>PETER</Manager>"
    XMLDoc = XMLDoc & "         <NcrProcess/>"
    XMLDoc = XMLDoc & "         <LongDescription> WIP items failed inspection and were subsequently scrapped
</LongDescription>"
    XMLDoc = XMLDoc & "         <PotentialCauses>"
    XMLDoc = XMLDoc & "             Scrap.CodeObject.ScrapCodeDescription
    XMLDoc = XMLDoc & "         </PotentialCauses>"
    XMLDoc = XMLDoc & "         <Impact>Rework needs to be performed on the items that failed inspection</Impact>"
    XMLDoc = XMLDoc & "         <Priority />"
    XMLDoc = XMLDoc & "         <Complete />"
    XMLDoc = XMLDoc & "         <Origin>"
    XMLDoc = XMLDoc & "             <OriginateType>J</OriginateType>"
    XMLDoc = XMLDoc & "             <OriginOrder>"
    XMLDoc = XMLDoc & "                 WIPInspectionDetails.CodeObject.Job
    XMLDoc = XMLDoc & "             </OriginOrder>"
    XMLDoc = XMLDoc & "         </Origin>"
    XMLDoc = XMLDoc & "         <eSignature>{36303032-3330-3031-3038-323434363433}</eSignature>"
    XMLDoc = XMLDoc & "     </Item>"
    XMLDoc = XMLDoc & " </PostNonConformance>"
end function

```

Production Triggers

Failed inspections (Work in Progress)

```
' Sample VBScript triggered from WIPPIP (WIP Inspection maintenance) Scrap pane
' This script contains functions for form and field events.
' You must not modify the name of the functions.
Option Explicit

' Declare the variables to be used for processing
dim XMLOut, XMLParam, XMLDoc

Function Scrap_OnSubmit()
    ' Call SQMTRP to record the deviation when quantity of items scrapped exceeds
    ' 2 and the warehouse is "N"
    if (Scrap.CodeObject.QuantityScrapped > 2 and WIPInspectionDetails.CodeObject.Warehouse = "N") then
        call record_non_conformance_deviation()
    end if
End Function

' This function calls the functions that setup the SQMTRP XML documents (Parameter&XMLIn)
' and then proceeds to call the Business object for posting
Function record_non_conformance_deviation()

    ' Setup the XML parameters document
    call setup_xml_parameters()

    'Setup the XMLIn document
    call setup_xmlIn_doc()

    'Call SQMTRP to process and check for any errors on return
    on error resume next
    XMLOut = CallTrn("SQMTRP",XMLParam,XMLDoc,"Post","auto")
    if err then
        msgbox err.Description, vbCritical, "Calling Business Object"
        exit function
    end if

    ' Switch on error handling
    on error goto 0
End function

' This function sets up the XML parameters document
function setup_xml_parameters()
    XMLParam = XMLParam & " <?xml version='1.0' encoding='Windows-1252'?>"
    XMLParam = XMLParam & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLParam = XMLParam & " <!-- "
    XMLParam = XMLParam & "        Sample XML for the NCR Report Maintenance Post Business Object"
    XMLParam = XMLParam & " -->"
    XMLParam = XMLParam & " <PostNonConformance>"
    XMLParam = XMLParam & "     <Parameters>"
    XMLParam = XMLParam & "         <ActionType>A</ActionType>"
    XMLParam = XMLParam & "         <ValidateOnly>N</ValidateOnly>"
    XMLParam = XMLParam & "         <IgnoreWarnings>Y</IgnoreWarnings>"
    XMLParam = XMLParam & "         <ApplyIfEntireDocumentValid>N</ApplyIfEntireDocumentValid>"
    XMLParam = XMLParam & "     </Parameters>"
    XMLParam = XMLParam & " </PostNonConformance>"
end function

' This function sets up the XMLIn document
function setup_xmlIn_doc()
    XMLDoc = XMLDoc & " <?xml version='1.0' encoding='Windows-1252'?>"
    XMLDoc = XMLDoc & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLDoc = XMLDoc & " <!-- "
    XMLDoc = XMLDoc & "        Sample XML for the NCR Report Maintenance Posting Business Object"
    XMLDoc = XMLDoc & " -->"
    XMLDoc = XMLDoc & " <PostNonConformance>"
    XMLDoc = XMLDoc & "     <Item>"
    XMLDoc = XMLDoc & "         <LineAction>A</LineAction>"
    XMLDoc = XMLDoc & "         <NcrNumber />"
    XMLDoc = XMLDoc & "         <NcrDescription>Failed Work In Progress Inspections</NcrDescription>"
    XMLDoc = XMLDoc & "         <NcrStandard>OTT</NcrStandard>"
    XMLDoc = XMLDoc & "         <Owner>ADMIN</Owner>"
end function
```

```

XMLDoc = XMLDoc & "      <Manager>PETER</Manager>"
XMLDoc = XMLDoc & "      <NcrProcess/>"
XMLDoc = XMLDoc & "      <LongDescription> WIP items failed inspection and were subsequently scrapped
</LongDescription>"
XMLDoc = XMLDoc & "      <PotentialCauses>"
XMLDoc = XMLDoc & "          Scrap.CodeObject.ScrapCodeDescription
XMLDoc = XMLDoc & "      </PotentialCauses>"
XMLDoc = XMLDoc & "      <Impact>Rework needs to be performed on the items that failed inspection</Impact>"
XMLDoc = XMLDoc & "      <Priority />"
XMLDoc = XMLDoc & "      <Complete />"
XMLDoc = XMLDoc & "      <Origin>"
XMLDoc = XMLDoc & "          <OriginateType>J</OriginateType>"
XMLDoc = XMLDoc & "          <OriginOrder>"
XMLDoc = XMLDoc & "              WIPInspectionDetails.CodeObject.Job
XMLDoc = XMLDoc & "          </OriginOrder>"
XMLDoc = XMLDoc & "      </Origin>"
XMLDoc = XMLDoc & "      <eSignature>{36303032-3330-3031-3038-323434363433}</eSignature>"
XMLDoc = XMLDoc & "    </Item>"
XMLDoc = XMLDoc & "  </PostNonConformance>"
end function

```

Late job delivery

```

' Sample VBScript triggered from IMP01B (Job Receipts)
' This script contains functions for form and field events.
' You must not modify the name of the functions.
Option Explicit

' Declare the variables to be used for processing
dim XMLOut, XMLParam, XMLDoc
dim ActualCompletionDate
dim JobDeliveryDate

Function JobDetails_OnSubmit()
  ' Change the dates from plain strings to strings with a date format
  ActualCompletionDate = Mid(JobDetails.CodeObject.ActualJobCompletionDate, 1, 4) & "-" & Mid
(JobDetails.CodeObject.ActualJobCompletionDate, 5, 2) & "-" & Mid(JobDetails.CodeObject.ActualJobCompletionDate, 6)
  JobDeliveryDate = Mid(JobDetails.CodeObject.JobDeliveryDate, 1, 4) & "-" & Mid
(JobDetails.CodeObject.JobDeliveryDate, 5, 2) & "-" & Mid(JobDetails.CodeObject.JobDeliveryDate, 6)

  ' Call SQMTRP to record the deviation when the job Delivery date is later
  ' than the Actual date
  if ActualCompletionDate > JobDeliveryDate then
    call record_non_conformance_deviation()
  end if
End Function

' This function calls the functions that setup the SQMTRP XML documents (Parameter&XMLIn)
' and then proceeds to call the Business object for posting
Function record_non_conformance_deviation()

  ' Setup the XML parameters document
  call setup_xml_parameters()

  'Setup the XMLIn document
  call setup_xmlIn_doc()

  'Call SQMTRP to process and check for any errors on return
  on error resume next
  XMLOut = CallTrn("SQMTRP",XMLParam,XMLDoc,"Post","auto")
  if err then
    msgbox err.Description, vbCritical, "Calling Business Object"
    exit function
  end if

  ' Switch on error handling
  on error goto 0
End function

' This function sets up the XML parameters document

```



```

function setup_Xml_parameters()
    XMLParam = XMLParam & "<?xml version='1.0' encoding='Windows-1252'?>"
    XMLParam = XMLParam & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLParam = XMLParam & " <!-- "
    XMLParam = XMLParam & "         Sample XML for the NCR Report Maintenance Post Business Object"
    XMLParam = XMLParam & " -->"
    XMLParam = XMLParam & " <PostNonConformance>"
    XMLParam = XMLParam & "     <Parameters>"
    XMLParam = XMLParam & "         <ActionType>A</ActionType>"
    XMLParam = XMLParam & "         <ValidateOnly>N</ValidateOnly>"
    XMLParam = XMLParam & "         <IgnoreWarnings>Y</IgnoreWarnings>"
    XMLParam = XMLParam & "         <ApplyIfEntireDocumentValid>N</ApplyIfEntireDocumentValid>"
    XMLParam = XMLParam & "     </Parameters>"
    XMLParam = XMLParam & " </PostNonConformance>"
end function

' This function sets up the XMLIn document
function setup_xmlIn_doc()
    XMLDoc = XMLDoc & "<?xml version='1.0' encoding='Windows-1252'?>"
    XMLDoc = XMLDoc & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLDoc = XMLDoc & " <!-- "
    XMLDoc = XMLDoc & "         Sample XML for the NCR Report Maintenance Posting Business Object"
    XMLDoc = XMLDoc & " -->"
    XMLDoc = XMLDoc & " <PostNonConformance>"
    XMLDoc = XMLDoc & "     <Item>"
    XMLDoc = XMLDoc & "         <LineAction>A</LineAction>"
    XMLDoc = XMLDoc & "         <NcrNumber />"
    XMLDoc = XMLDoc & "         <NcrDescription>Late Job delivery</NcrDescription>"
    XMLDoc = XMLDoc & "         <NcrStandard>OTIF</NcrStandard>"
    XMLDoc = XMLDoc & "         <Owner>ADMIN</Owner>"
    XMLDoc = XMLDoc & "         <Manager>PETER</Manager>"
    XMLDoc = XMLDoc & "         <NcrProcess/>"
    XMLDoc = XMLDoc & "         <LongDescription>Job was delivered later than originally planned</LongDescription>"
    XMLDoc = XMLDoc & "         <PotentialCauses>Raw materials were delivered late</PotentialCauses>"
    XMLDoc = XMLDoc & "         <Impact>Plant Manager might have to allocate overtime hours for rework</Impact>"
    XMLDoc = XMLDoc & "         <Priority />"
    XMLDoc = XMLDoc & "         <Complete />"
    XMLDoc = XMLDoc & "         <Origin>"
    XMLDoc = XMLDoc & "             <OriginateType>J</OriginateType>"
    XMLDoc = XMLDoc & "             <OriginOrder>"
    XMLDoc = XMLDoc & "                 JobDetails.CodeObject.Job
    XMLDoc = XMLDoc & "             </OriginOrder>"
    XMLDoc = XMLDoc & "         </Origin>"
    XMLDoc = XMLDoc & "         <eSignature>{36303032-3330-3031-3038-323434363433}</eSignature>"
    XMLDoc = XMLDoc & "     </Item>"
    XMLDoc = XMLDoc & " </PostNonConformance>"
end function

```

Quantity shortfall at delivery

```

' Sample VBScript triggered from IMP01B (Job Receipts)
' This script contains functions for form and field events.
' You must not modify the name of the functions.
Option Explicit

' Declare the variables to be used for processing
dim XMLOut, XMLParam, XMLDoc

Function JobDetails_OnSubmit()
    ' Call SQMTRP to record the deviation when the value of the QTY received
    ' is less than the QTY to make

    if (JobDetails.CodeObject.Quantity < JobInformation.CodeObject.ToMake) then
        call record_non_conformance_deviation()
    end if
End Function

' This function calls the functions that setup the SQMTRP XML documents (Parameter&XMLIn)
' and then proceeds to call the Business object for posting

```

```

Function record_non_conformance_deviation()

    ' Setup the XML parameters document
    call setup_xml_parameters()

    'Setup the XMLIn document
    call setup_xmlIn_doc()

    'Call SQMTRP to process and check for any errors on return
    on error resume next
    XMLOut = CallTrn("SQMTRP",XMLParam,XMLDoc,"Post","auto")
    if err then
        msgbox err.Description, vbCritical, "Calling Business Object"
        exit function
    end if

    ' Switch on error handling
    on error goto 0
End function

' This function sets up the XML parameters document
function setup_xml_parameters()
    XMLParam = XMLParam & " <?xml version='1.0' encoding='Windows-1252'?>"
    XMLParam = XMLParam & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLParam = XMLParam & " <!-- "
    XMLParam = XMLParam & "      Sample XML for the NCR Report Maintenance Post Business Object"
    XMLParam = XMLParam & " -->"
    XMLParam = XMLParam & " <PostNonConformance>"
    XMLParam = XMLParam & "   <Parameters>"
    XMLParam = XMLParam & "     <ActionType>A</ActionType>"
    XMLParam = XMLParam & "     <ValidateOnly>N</ValidateOnly>"
    XMLParam = XMLParam & "     <IgnoreWarnings>Y</IgnoreWarnings>"
    XMLParam = XMLParam & "     <ApplyIfEntireDocumentValid>N</ApplyIfEntireDocumentValid>"
    XMLParam = XMLParam & "   </Parameters>"
    XMLParam = XMLParam & " </PostNonConformance>"
end function

' This function sets up the XMLIn document
function setup_xmlIn_doc()
    XMLDoc = XMLDoc & " <?xml version='1.0' encoding='Windows-1252'?>"
    XMLDoc = XMLDoc & " <!-- Copyright 1994-2024 SYSPRO Ltd.-->"
    XMLDoc = XMLDoc & " <!-- "
    XMLDoc = XMLDoc & "      Sample XML for the NCR Report Maintenance Posting Business Object"
    XMLDoc = XMLDoc & " -->"
    XMLDoc = XMLDoc & " <PostNonConformance>"
    XMLDoc = XMLDoc & "   <Item>"
    XMLDoc = XMLDoc & "     <LineAction>A</LineAction>"
    XMLDoc = XMLDoc & "     <NcrNumber />"
    XMLDoc = XMLDoc & "     <NcrDescription>QTY under delivery</NcrDescription>"
    XMLDoc = XMLDoc & "     <NcrStandard>QUD</NcrStandard>"
    XMLDoc = XMLDoc & "     <Owner>ADMIN</Owner>"
    XMLDoc = XMLDoc & "     <Manager>PETER</Manager>"
    XMLDoc = XMLDoc & "     <NcrProcess/>"
    XMLDoc = XMLDoc & "     <LongDescription>Manufactured quantity is not sufficient</LongDescription>"
    XMLDoc = XMLDoc & "     <PotentialCauses>Artisans read the Job card incorrectly</PotentialCauses>"
    XMLDoc = XMLDoc & "     <Impact>Scheduling of a new job required</Impact>"
    XMLDoc = XMLDoc & "     <Priority />"
    XMLDoc = XMLDoc & "     <Complete />"
    XMLDoc = XMLDoc & "     <Origin>"
    XMLDoc = XMLDoc & "       <OriginateType>J</OriginateType>"
    XMLDoc = XMLDoc & "       <OriginOrder>"
    XMLDoc = XMLDoc & "         JobDetails.CodeObject.Job
    XMLDoc = XMLDoc & "       </OriginOrder>"
    XMLDoc = XMLDoc & "     </Origin>"
    XMLDoc = XMLDoc & "     <eSignature>{36303032-3330-3031-3038-323434363433}</eSignature>"
    XMLDoc = XMLDoc & "   </Item>"
    XMLDoc = XMLDoc & " </PostNonConformance>"
end function

```

Inventory and Stock Management

Stock take deviations

```

' Sample VBScript triggered from INVP63 (Stock Take Capture by Stock Code)
' This script contains functions for form and field events.
' You must not modify the name of the functions.
Option Explicit

' Declare the variables to be used for processing
dim XMLOut, XMLParam, XMLDoc

Function StockTakeQuantityCaptureByStockCod_OnSubmit()
' Call SQMTRP to record the deviation when the value of the QTY on hand
' does not match up with the captured qty

if (StockTakeQuantityCaptureByStockCod.CodeObject.QtyOnHand
<> StockTakeQuantityCaptureByStockCod.CodeObject.TotalCapturedQuantity) then
call record_non_conformance_deviation()
end if
End Function

' This function calls the functions that setup the SQMTRP XML documents (Parameter&XMLIn)
' and then proceeds to call the Business object for posting
Function record_non_conformance_deviation()

' Setup the XML parameters document
call setup_xml_parameters()

'Setup the XMLIn document
call setup_xmlIn_doc()

'Call SQMTRP to process and check for any errors on return
on error resume next
XMLOut = CallTrn("SQMTRP",XMLParam,XMLDoc,"Post","auto")
if err then
msgbox err.Description, vbCritical, "Calling Business Object"
exit function
end if

' Switch on error handling
on error goto 0
End function

' This function sets up the XML parameters document
function setup_xml_parameters()
XMLParam = XMLParam & "<?xml version='1.0' encoding='Windows-1252'?>"
XMLParam = XMLParam & "<!-- Copyright 1994-2024 SYSPRO Ltd.-->"
XMLParam = XMLParam & "<!-- "
XMLParam = XMLParam & "Sample XML for the NCR Report Maintenance Post Business Object"
XMLParam = XMLParam & "-->"
XMLParam = XMLParam & "<PostNonConformance>"
XMLParam = XMLParam & "<Parameters>"
XMLParam = XMLParam & "<ActionType>A</ActionType>"
XMLParam = XMLParam & "<ValidateOnly>N</ValidateOnly>"
XMLParam = XMLParam & "<IgnoreWarnings>Y</IgnoreWarnings>"
XMLParam = XMLParam & "<ApplyIfEntireDocumentValid>N</ApplyIfEntireDocumentValid>"
XMLParam = XMLParam & "</Parameters>"
XMLParam = XMLParam & "</PostNonConformance>"
end function

' This function sets up the XMLIn document
function setup_xmlIn_doc()
XMLDoc = XMLDoc & "<?xml version='1.0' encoding='Windows-1252'?>"
XMLDoc = XMLDoc & "<!-- Copyright 1994-2024 SYSPRO Ltd.-->"
XMLDoc = XMLDoc & "<!-- "
XMLDoc = XMLDoc & "Sample XML for the NCR Report Maintenance Posting Business Object"
XMLDoc = XMLDoc & "-->"
XMLDoc = XMLDoc & "<PostNonConformance>"
XMLDoc = XMLDoc & "<Item>"
XMLDoc = XMLDoc & "<LineAction>A</LineAction>"
XMLDoc = XMLDoc & "<NcrNumber />"
XMLDoc = XMLDoc & "<NcrDescription>Stock Take Deviations</NcrDescription>"

```

```

XMLDoc = XMLDoc & "      <NcrStandard>STT</NcrStandard>"
XMLDoc = XMLDoc & "      <Owner>ADMIN</Owner>"
XMLDoc = XMLDoc & "      <Manager>PETER</Manager>"
XMLDoc = XMLDoc & "      <NcrProcess/>"
XMLDoc = XMLDoc & "      <LongDescription>Quantity captured less than on Hand</LongDescription>"
XMLDoc = XMLDoc & "      <PotentialCauses>under counted on previous stock take</PotentialCauses>"
XMLDoc = XMLDoc & "      <Impact>correct via Inventory movements</Impact>"
XMLDoc = XMLDoc & "      <Priority />"
XMLDoc = XMLDoc & "      <Complete />"
XMLDoc = XMLDoc & "      <Origin>"
XMLDoc = XMLDoc & "          <OriginateType>I</OriginateType>"
XMLDoc = XMLDoc & "          <StockCode>"
XMLDoc = XMLDoc & "              StockTakeQuantityCaptureByStockCod.CodeObject.StockCode
XMLDoc = XMLDoc & "          </StockCode>"
XMLDoc = XMLDoc & "      </Origin>"
XMLDoc = XMLDoc & "      <eSignature>{36303032-3330-3031-3038-323434363433}</eSignature>"
XMLDoc = XMLDoc & "    </Item>"
XMLDoc = XMLDoc & "  </PostNonConformance>"
end function

```



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