



# Infor EAM Nonconformities

### **Important Notices**

The material contained in this publication (including any supplementary information) constitutes and contains confidential and proprietary information of Infor.

By gaining access to the attached, you acknowledge and agree that the material (including any modification, translation or adaptation of the material) and all copyright, trade secrets and all other right, title and interest therein, are the sole property of Infor and that you shall not gain right, title or interest in the material (including any modification, translation or adaptation of the material) by virtue of your review thereof other than the non-exclusive right to use the material solely in connection with and the furtherance of your license and use of software made available to your company from Infor pursuant to a separate agreement, the terms of which separate agreement shall govern your use of this material and all supplemental related materials ("Purpose").

In addition, by accessing the enclosed material, you acknowledge and agree that you are required to maintain such material in strict confidence and that your use of such material is limited to the Purpose described above. Although Infor has taken due care to ensure that the material included in this publication is accurate and complete, Infor cannot warrant that the information contained in this publication is complete, does not contain typographical or other errors, or will meet your specific requirements. As such, Infor does not assume and hereby disclaims all liability, consequential or otherwise, for any loss or damage to any person or entity which is caused by or relates to errors or omissions in this publication (including any supplementary information), whether such errors or omissions result from negligence, accident or any other cause.

Without limitation, U.S. export control laws and other applicable export and import laws govern your use of this material and you will neither export or re-export, directly or indirectly, this material nor any related materials or supplemental information in violation of such laws, or use such materials for any purpose prohibited by such laws.

### **Trademark Acknowledgements**

The word and design marks set forth herein are trademarks and/or registered trademarks of Infor and/or related affiliates and subsidiaries. All rights reserved. All other company, product, trade or service names referenced may be registered trademarks or trademarks of their respective owners.

### **Publication Information**

Release: Infor EAM 11.4.1

Publication date: October 24, 2018

---

# Contents

<b>About this brief</b> .....	<b>5</b>
Related documents.....	5
Contacting Infor.....	5
<b>Overview</b> .....	<b>6</b>
<b>Nonconformities</b> .....	<b>7</b>
Nonconformities screen.....	7
Nonconformities – Observation tab.....	11
Nonconformities – Checklist tab.....	12
Nonconformity Observations Screen.....	12
Work Orders – Nonconformities tab.....	14
Equipment Screens – Nonconformities tab.....	14
<b>Nonconformities Setup</b> .....	<b>16</b>
Condition Score Matrix Setup screen.....	16
Nonconformity Types screen.....	17
Nonconformity Types – Material Types tab.....	17
Nonconformity Types – EMRS tab.....	18
Nonconformity Types – Parts tab.....	18
Parts screen.....	18
Parts – Nonconformity Types tab.....	18
VMRS Codes screen.....	18
VMRS Codes – Nonconformity Types tab.....	19
Nonconformities Setup screen.....	19
Nonconformities Setup – Status Dependencies tab.....	21
<b>Nonconformity automatic re-inspection</b> .....	<b>22</b>

PM Schedules – Equipment tab .....	22
PM Schedules – Nonconformities tab .....	22
Maintenance Patterns – Equipment tab .....	23
Standard WO – Nonconformities tab.....	23
Generate WOs screen .....	24
<b>Nonconformities process flow example.....</b>	<b>25</b>
<b>Nonconformity alerts .....</b>	<b>26</b>
Create Work Order for Nonconformities Alert .....	26
Alert grid definition.....	26
Grid conditions.....	28
Alert parameters .....	28

## About this brief

This brief provides conceptual information for the Nonconformities feature in the EAM application. It includes general information about the screens. This brief is intended to supplement the documentation on this feature. It is not comprehensive and may not include all the details about this functionality.

## Related documents

See these documents on the [Infor Support Portal](#) for more detailed instructions:

- Infor EAM System Administrator Guide
- Infor EAM User Guide
- Infor EAM Reports User Guide

Additional documentation is available on the portal. To access documentation, select **Search < Browse Documentation**. If we update this document after the product release, we will post the new version on the portal. We recommend that you check this portal periodically for updated documentation.

## Contacting Infor

If you have questions about Infor products, go to Infor Concierge at <https://conciierge.infor.com/> and create a support incident.

If you have comments about Infor documentation, contact [documentation@infor.com](mailto:documentation@infor.com).

## Overview

Every industry needs the ability to capture certain anomalies and report on these. In Infor EAM this usually relates to Equipment that needs repair or preventive maintenance and is handled through a work order. But what if the anomaly you are recording does not need an immediate fix? Think of a small crack in the road surface, initial corrosion of a steel pipe, or some minor wood rot.

Even though there may not be a need to repair the anomaly, you may still want to track it and see how it develops over time. The crack may worsen until it is so big it starts to form a danger for the traffic. The corrosion will likely continue and eventually impact the integrity of the pipe and cause leakage or maybe even an explosion. The wood keeps rotting and will put people in danger when eventually the deck collapses.

In Infor EAM you can track these anomalies and their development over time on the nonconformity screens.

## Nonconformities

Collect data on anomalies or defects that you have observed. These anomalies or defects are referred to as nonconformities.

A nonconformity can have multiple observations. For example, in January 2016 we recorded a nonconformity against the foundation of a building. The concrete in a specific corner was wet. In July of 2016 we went back to the same place and noticed that the area was still wet, but that it had grown in size. Both observation records will have different attributes associated. For example, we took a picture in January and one in July as well. Two different pictures attached to two different observations. But both observation records must be recorded against the same Nonconformity number. Otherwise how would you know that they belong together?

In order to easily differentiate between these two observations, the January record will be Observation 1 and the July record will be Observation 2.

## Nonconformities screen

The Nonconformities screen has the following important fields:

- **Nonconformity:** The unique number identifying the nonconformity is automatically assigned.
- **Description:** Short description of the nonconformity. If you enter **Type** first and this field is still blank, the system will fill in the type description.
- **Organization:** The organization can only be specific, like the **Work Order** screen.
- **Status:** System Codes status entity 'NCST'.
  - Open: This is the status where data can be changed.
  - Closed: Data is protected and the nonconformity will not be included in automatic re-inspections any more.

You can still change the status when the nonconformity is closed. You can also reopen a closed nonconformity.

- **Equipment:** A nonconformity must reference equipment. A value is required.
- **Department:** Defaults from the selected Equipment, but can be changed freely.
- **Location:** Defaults from the selected Equipment, but can be changed freely.
- **System Level:** Optional reference. Use this to better identify what subset of the equipment the observation is against. For example, if the equipment is a building and the building has no child

equipment, you can use this field to identify that the problem is with the roof or with the foundation. System level codes can be created on the **VMRS Codes** screen.

- You can also specify **Assembly Level** and **Component Level** here, if a further breakdown beyond **System Level** is desired.
- These values may default from the selected **Equipment**.
- **Part**: Optional reference. Similar purpose as described above under **System Level**. There is no penalty using one or the other or even both together. This value may default from the selected **Equipment**.
- **Material Type**: Optional reference. System Codes type entity 'MATP'. This value may default from the selected **System Level, Assembly Level and Component Level** or from the **Part**.
- **Type**: Select from the list of nonconformity types. See setup section in this document, for more details on nonconformity types. This lookup is sensitive to the selection you have made for **System Level, Assembly Level and Component Level, Part and Material Type**. In a nutshell:
  - The system will show all nonconformity types that are general (**General** check box is selected on the Nonconformity Types screen).
  - The system will also show all other nonconformity types, those that are not general, providing they are attached to at least one of the **System Level, Assembly Level, Component Level, Part, or Material Type** as entered on this screen.

The following four fields determine the condition of the equipment as it relates to this specific nonconformity. You do not have to use all four fields. Whether you do or do not depends largely on your requirements.

After entering **Severity, Intensity, Size, and Importance** the system will immediately determine the **Condition Score, Condition Index and Next Inspection Date**, depending on the condition score matrix setup. See the Nonconformities Setup section of this document.

The system will search the condition score matrix for a match within a certain RCM Project. To determine which RCM Project to use, the system first looks at the **Organization** of the nonconformity. If that **Organization** has a RCM Project attached that project will be used. Otherwise the system will use the RCM Project that is selected as the system default (See System Codes entity 'STPR').

- **Severity**: System Codes entity 'SEVE'. An example application for this field is how the functioning of the equipment is influenced. This value may default from the selected **Type**.  
Sample codes:
  - Severe (primary working is influenced, functionality of the part is lost),
  - Serious (part is degraded but still functional),
  - Minor (small defects, esthetics, no functional impact).
- **Intensity**: System Codes entity 'INTN'. An example application for this field is the stage of the nonconformity. Sample codes:
  - Low (early stages, just starting, hardly visible),
  - Average (Defect has progressed for some time, clearly visible),
  - High (End stage, cannot get much worse, very clearly visible).
- **Size**: Area or size of the nonconformity. Bigger is usually not better.



- **Importance:** System Codes entity 'IMPT'. Obvious application for this field is determining the importance of the component. A problem with the steps of the stairs is more important (arguably), than a problem with the paint of same stairs. This value may default from the selected **System Level**, **Assembly Level**, **Component Level** and **Part**. Sample codes:
  - Primary Construction Part (direct influence on the function of the part, e.g. steps of the stairs)
  - Secondary Construction Part (indirect influence, e.g. banister)
  - Tertiary Construction Part (finishing and protection, e.g. paint)

After entering or changing values for any one of these four fields, the system immediately determines values for the following three fields, providing it finds a corresponding record in the Condition Score Matrix:

- Condition Score
- Condition Index
- Next Inspection Date

The Condition Score Matrix requires a 100% match to determine a condition score, condition index and next inspection date. If such a match does not exist, there will be additional attempts to find a more generic record that matches. As follows:

Attempt 1) Search for a Severity, Intensity and Size match.

Attempt 2) Search for a Severity and Intensity match.

Attempt 3) Search for a Severity only match.

For example, if you entered Severity, Intensity, and Size and there is no 100% match but the system finds a record in the matrix that matches Severity and Intensity, and both Size and Importance are blank in the matrix, that record will be used. If no such record is found it will try again now with Severity only. In the matrix Intensity, Size and Importance must then be blank for a match.

You can also specify the following information:

- **Note:** Free text field for a quick comment.
- **Priority:** System Codes entity 'JBPR'. Priority codes are shared with the work order.
- **Next Inspection Date Override:** You may find the system calculated **Next Inspection Date** unacceptable. In that case use this field to override that value with a more appropriate date. This will impact automatic re-inspections.

If repair is required, and should not be postponed much longer, you can specify the following information:

- Recommended Repair Date
- Estimated Labor Costs
- Estimated Material Costs
- Estimated Misc. Costs
- Total Estimated Costs (Automatically calculated)

**Note:** These estimate fields will not be used on work orders created for the repair of this nonconformity. They will however be copied to the Capital Planning Request, if created from the

nonconformity. Because the Capital Planning Request does not support the miscellaneous costs field these costs will be added to the material costs.

- **Linear Reference Fields:** These fields work like those on the work order. If the selected Equipment is linear the fields become available. Unlike on the work order screen however, the **From Point** and **To Point** will not be defaulted. If the selected Equipment is not linear these fields will be cleared and protected.
- Several fields will be displayed for information purposes from the selected equipment. **These fields include Type, Department, Status, Operational Status, Class, Category, Safety, Criticality, Assigned To, Manufacturer, and Model.**
- **Buttons:**
  - **Merge Nonconformity:** This button will merge two nonconformities. You can use this if independent inspectors are tracking two different nonconformities that are, as it eventually turns out, the same issue. To merge these two nonconformities:
    - Select the nonconformity you want to keep.
    - Click the button.
    - On the popup select the nonconformity you want to merge. This is the one that will cease to exist.
    - Click Submit.
    - The nonconformity you selected to merge will get closed and all observations of this nonconformity have their **Nonconformity** code renamed and therefore are merged into the other (remaining) nonconformity. All observations will then be renumbered based on their Date Recorded. For records where this date is blank the system will use Date Created instead.
  - **Create WO:** This button will bring up the standard Create WO popup. When you click submit on the popup to create the work order, it will also create a new observation for the selected nonconformity and attach this to the created work order.
  - **Create Capital Planning Request:** This button creates a new capital planning request from the selected nonconformity.
  - **View All Comments:** This button will bring up the standard comments popup. This popup will show the comments of the selected nonconformity and of the latest observation (highest observation number) of that nonconformity. This popup will additionally show all comments of any unfinished (System Status) observations and a number of previous observations of the selected nonconformity. On the **Nonconformities Setup** screen, you can set **Previous Observation Count** to control how many previous observations are included. Note that if this option is blank, the system will show zero previous comments, but will still show the comments of unfinished observations.
  - **View All Documents**—This button will bring up the standard documents popup. This popup selects documents in a similar way the **View Comments** button selects comments.
- **Standard Tabs:** Data on the **Comments** and **Documents** tab will be protected if the status of the nonconformity is closed. The **Translations** tab is never protected.
  - Comments
  - Documents
  - Translations

Department security is implemented on the **Nonconformities** screen. When you enter a new nonconformity on this screen, the system also creates the first observation.

## Nonconformities – Observation tab

This tab on the **Nonconformities** screen has the following important fields:

- **Observation PK:** The unique record number is automatically assigned. This number identifies the observation of the nonconformity and is used internally by Infor EAM and is hidden by default.
- **Observation:** The sequence number identifying the observation for a specific nonconformity is automatically assigned.
- **Observation Status:** System Codes status entity 'NOST'.
  - Unfinished: This is the status where data can be changed.
  - Request Approval and Approved: Data is protected, but on the Nonconformities tab of the Revision Control Setup screen, you can identify which fields should not be protected with these statuses.
  - Skipped: Data is protected. Use this status when you found no time or opportunity to collect data for the observation. Or if the nonconformity has not changed since the last observation and there is no point recording anything. This status is typically used if a re-inspection was requested.
  - Repair: Data is unprotected if the associated work order is not completed yet. This is the status associated with the new observation of the repair work order that is created from this screen. See **Create WO** button.
  - Superseded: Data is protected. You can use this status when you approve an observation and another earlier observation exists that is also approved and now needs to be superseded.
- **Task Plan for Checklist:** You can associate a checklist to an observation. Checklists for this purpose can be created on the **Task Plans** screen. Make sure you select the **Nonconformity Checklist** check box, otherwise the Task Plan will not show up on the list here. **Task Plan for Checklist** may default from the selected **Type**.
- **Note:** Free text field for a quick comment.
- **Recorded By:** Employee who made the observation.
- **Date Recorded:** Date and time the observation was recorded.
- **Work Order:** Protected. Only populated if the observation is related to a work order.
- **Nonconformity Before Merge:** Protected. Only populated after the nonconformity is merged into another nonconformity.

The following fields are also available on the **Nonconformities** screen and they have the same purpose as well. Since the nonconformity may change over time the observation records provide insight in the development of the **Severity**, **Intensity**, **Size** and / or **Importance** and the associated

**Condition Score**, **Condition Index** and **Next Inspection Date**, depending on the condition score matrix setup.

- Severity
- Intensity
- Size
- Importance
- Condition Score
- Condition Index
- Next Inspection Date
- Next Inspection Date Override

Several fields will be displayed for information purposes from the work order, if attached. These fields include **Status**, **Description**, **Type**, **Priority**, **Department**, **Equipment**, **Location**, **Assigned To**, and **Assigned By**.

Buttons:

- **Add/Edit Comments**: This button will bring up the standard comments popup. This popup will additionally show all comments of any unfinished (System Status) observations and a number of previous observations of the selected observation. On the **Nonconformities Setup** screen, you can set **Previous Observation Count** to control how many previous observations are included. Note that if this option is blank, the system will show zero previous comments, but will still show the comments of unfinished observations.
- **Add/Edit Documents**: This button will bring up the standard documents popup. This popup selects documents in a similar way the **Add/Edit Comments** button selects comments.

## Nonconformities – Checklist tab

On this tab, you can fill in the checklist attached to the observations of the nonconformity. For example, use checklists to verify the observation data was collected correctly. You can read more about the checklist setup and use in the dedicated functional brief.

As mentioned earlier, the checklist is controlled by the selected **Task Plan for Checklist**. Ensure that **Active Checklist** is selected on the **Task Plans** screen. Otherwise the system will not copy the checklist.

## Nonconformity Observations Screen

This screen is a combination screen showing data from both the **Nonconformities** screen and the **Observations** tab. Therefore, a nonconformity with five observations will be visible on this screen five times, one time for each observation.

On this screen when you insert a new nonconformity you are entering data for the nonconformity header and the first observation at the same time. If there is only one observation for this nonconformity, this screen will also allow editing the header data on this screen. Once there are two or more observations attached to the nonconformity, the system will protect selected fields of the nonconformity header if:

- **Protect Header Data** is selected. See **Nonconformities Setup** screen.
- And **Protect** is selected for the field in question on the **Nonconformities** tab of the **Revision Control Setup** screen.

If **Protect Header Data** is not selected, the header nonconformity data will not be protected on this screen.

The screen has the following standard tabs.

- Comments
- Documents

The comments and documents as well as the user defined fields are all recorded on the level of the observation on this combination screen. Data on the **Comments** and **Documents** tab will be protected if the status of the observation is superseded.

It also has a **Checklist** tab like the Nonconformities screen, but since this screen does show the observation, there is no need to select the observation first.

The screen has the following buttons.

- **New Observation:** This button will create a new observation record for the selected nonconformity. The status of this observation is determined by the **Nonconformities Setup** screen. If **Use Observation Status** on this screen is 'Yes' or 'Automatic', then the system uses the value of **Re-Inspection Status**. Otherwise the default unfinished status will be assigned.

To create a new observation:

- 1 Select any observation of the nonconformity for which you want a new observation.
- 2 Click the button.
- 3 The following buttons are shared with the **Nonconformities** screen:
  - Create WO
  - View All Comments
  - View All Documents

## Work Orders – Nonconformities tab

This tab on the **Work Order** screen is similar to the **Nonconformity Observations** screen. It works the same with the following exceptions:

- **Organization:** Protected on this screen and will always be the same as the **Organization** of the work order.
- **Equipment:** This value will default from the work order, but can obviously be changed.
- **Work Order:** Not needed and therefore not available on this screen.
- **Actions:** This screen has the following link buttons:
  - **Import Nonconformity:** This button will open the **Import Nonconformities** popup. New observations will be created for all imported nonconformities and will be attached to the work order.
  - **Add/Edit Comments:** Add new or update existing comments. This popup will also show additional comments of other observations. See the description for the **View Comments** button on the **Nonconformities** screen.
  - **Add/Edit Documents:** Add new or update existing documents. This popup will also show additional documents of other observations. See the description for the **View Documents** button on the **Nonconformities** screen.
  - **Update Status:** This button will open a popup on which a status change can be requested for all records on the tab. The status change goes through the normal checks and is controlled by the status authorization matrix. The popup supports status changes on both the nonconformity header level, as well as the observation level.

**Note:** This tab behaves differently if the work order is closed, in that the data on this tab will not be protected. **Job Type Authorization** does not play a role on this tab either. Instead protection is derived from the usual status handling for nonconformity records. This similarly applies to the Department Security check that is controlled by the department of the equipment of the nonconformity and not by the department of the work order.

## Equipment Screens – Nonconformities tab

This list only tab shows all nonconformities attached to the equipment or any of the children of that equipment. Double clicking a record will hyperlink to the selected nonconformity. This screen also offers a second hyperlink field called **View Observation** that will behave similarly, but is pre-programmed to launch the **Nonconformity Observations** screen and only select the one specific observation that was selected.

This screen shows both header nonconformity data as well as observation data. You can use the **Source Type** field to separate the two types of records. Nonconformity records will not show any observation data (fields remain blank), but observation records will show the current values from the nonconformity header as well, like equipment, type and class for example.

**Note:** Hyperlink results are subject to the selected Dataspy or the default Dataspy of the user. Records therefore may not always show as expected. Hyperlinks can be configured with Screen Designer.

## Nonconformities Setup

Setup for nonconformities focuses on three screens. The condition score matrix setup which is used to derive a score for the nonconformity, the nonconformity types screen where you define the typical nonconformities you will encounter, like rot, corrosion, cracking, etc., and the nonconformities setup screen where you can determine how the nonconformity screens should behave.

### Condition Score Matrix Setup screen

The Condition Score Matrix Setup screen has the following important fields:

- **RCM Project:** System Codes entity 'STPR'. By using this project, you will be able to use different matrices for different organizations. On the **Organizations** screen you already can select a RCM Project. If that field is not blank, the organization will use that project to find the applicable score. If blank the system will revert to the **System Codes** screen and will use the default project from there.
- **Severity:** See description above on the **Nonconformities** screen.
- **Intensity:** See description above on the **Nonconformities** screen.
- **Size From:** Specify the beginning of the size range.
- **Size To:** Specify the end of the size range. Ranges cannot overlap for the same combination of **RCM Project, Severity, Intensity, and Importance**.
- **Importance:** See description above on the Nonconformities screen.
- **Condition Score:** A simple numeric value. The system does not assume higher is better. Any value that you associate to the selected severity, intensity, size and importance on the nonconformity will do as long as that value fits into your coding system for nonconformities.
- **Condition Index:** System Codes entity 'OBRI'. Make sure you select System Code 'CI'. This entity supports icons to better identify nonconformities on the screen.
- **Re-Inspect After:** Determine the period after which you want to come back for a re-inspection of the nonconformity.
- **Standard Tabs**
  - Comments
  - Documents



## Nonconformity Types screen

The **Nonconformity Types** screen has the following important fields:

- **Nonconformity Type:** Together with the **Organization** this determines the unique key of the nonconformity type.
- **Organization:** The organization can be common or specific.
- **Description:** Short description of the nonconformity type. This value will be used as the default description, if a nonconformity type is selected and no description is manually entered yet on the nonconformity screens. This is obviously only relevant in insert mode.
- **General:** A new nonconformity type will always be selected as general, meaning it can be used anytime. This field will be unselected automatically, if the type is associated with a material type, an EMRS code or a part.
- **Standard WO:** The selected standard wo is used by the pre-configured alert delivered with the nonconformity functionality. It is however not used as a default when you create a work order from the **Nonconformities** screen.
- Following is a list of fields that are copied to the nonconformity, as default values, when the type is selected. For an explanation we refer to the **Nonconformities** screen above.
  - Severity
  - Nonconformity Class
    - Note:** This field does not impact custom fields on this screen.
  - Task Plan for Checklist
- Standard Tabs
  - Comments
  - Documents
  - Translations

## Nonconformity Types – Material Types tab

On the **Material Types** tab of the **Nonconformity Types** screen, you can define one or more material types for which the nonconformity type is relevant. For example, if the nonconformity type is wood rot or termite infestation then adding wood on this list is a clear choice. Adding a material like steel or iron, however, is not.

Once you add a **Material Type** on this tab immediately the selected nonconformity type of the header record will not be general any more. It will now only show as an option on the **Nonconformities** screen if one of the associated material types is selected there as well.

## Nonconformity Types – EMRS tab

This tab works similar as the **Material Types** tab of the **Nonconformity Types** screen.

Note that you do not have to enter all possible combinations on this screen. If a nonconformity type is applicable for all component levels of an assembly level simply enter **System Level** and **Assembly Level** and leave **Component Level** blank. If a nonconformity type is applicable for all assembly and component levels of a system level simply enter **System Level** and leave **Assembly Level** and **Component Level** blank.

## Nonconformity Types – Parts tab

This tab works similar as the **Material Types** tab of the **Nonconformity Types** screen.

**Note:** Both the **EMRS** tab and the **Parts** tab have their twin tab called **Nonconformity Types** on respectively the **VMRS Codes** screen and the **Parts** screen.

## Parts screen

The **Parts** screen has the following important fields related to nonconformities:

The following is a list of fields that are copied to the nonconformity as default value when the part code is selected. For an explanation on these fields see the **Nonconformities** screen section above.

- Material Type
- Importance

## Parts – Nonconformity Types tab

Like the **Parts** tab on the **Nonconformity Types** screen.

## VMRS Codes screen

The **VMRS Codes** screen has the following important attributes related to nonconformities:

The following is a list of fields that are copied to the nonconformity as default value when the VMRS code (**System Level**, **Assembly Level** and / or **Component Level**) is selected. For an explanation on these fields see the **Nonconformities** screen section above.

- Material Type
- Importance

## VMRS Codes – Nonconformity Types tab

Like the **EMRS** tab on the **Nonconformity Types** screen.

## Nonconformities Setup screen

The **Nonconformities Setup** screen shows a setup record for each organization you have read or update rights for. The screen has the following important attributes:

- **Protect header Data:** If selected, the header nonconformity data on the **Nonconformity Observations** screen and the **Nonconformities** tab of the **Work Order** screen will be protected if more than one observation is present for the nonconformity. Otherwise, these fields will remain unprotected and any changes will update the header nonconformity.

**Note:** Protection of individual fields is still subject to the selections on the **Nonconformities** tab of the **Revision Control Setup** screen.

- **Protect Observation Data on Header:** If selected, **Severity**, **Intensity**, **Size**, **Importance**, and **Next Inspection Date Override** will be protected on the **Nonconformities** screen in update mode. Otherwise, these fields will remain unprotected.
- **Synchronize Header With Observation:** Observation data can be synchronized with the associated nonconformity header. The system will copy **Severity**, **Intensity**, **Size**, **Importance**, **Condition Index**, **Condition Score**, **Next Inspection Date** and **Next Inspection Date Override** from the observation to the header nonconformity. Select the timing when this synchronization should occur.
  - At Approval of the observation. Only active if the original (system) status was not approved.
  - At Update of the observation. Note that this is applicable for any update applied, even if you update **Date Recorded**.
  - Never, i.e. the synchronization feature is switched off.
- **Merge Restrictions:** Determines which nonconformities can be selected for merging.
  - If set to Unrestricted, there is no constraint. Meaning you can merge nonconformities of different equipment for example, or a different Type.
  - If set to Restricted, Equipment, Type, Part, System Level, Assembly Level, Component Level, and Material Type must be the same or blank.

- If set to Similar Equipment, only Equipment must be the same.
- If set to Similar Type, only Type must be the same.
- And if set to Similar Part, only Part, System Level, Assembly Level, Component Level, and Material Type must be the same.
- **Create from Checklist:** Determines if new nonconformities, or observations for open nonconformities, are automatically created from the work order checklist and the operator checklist. Select the timing and the source from which creation should occur.
  - If set to At Review Sign Off, system will possibly create nonconformities or observations when the Reviewed By signature is placed on the checklist of the work order or operator checklist screens.
  - Similar if set to At Review Sign Off (WO Only), only from the checklist of the work order.
  - If set to Never, the creation function is switched off.
- Use Observation Status: Nonconformity observations require manual status changes or not.
  - If Yes, the user must manually change the observation status.
  - If No, the system will protect the observation status and never apply changes.
  - If Automatic, the system will protect the observation status and will apply updates automatically.
- **Superseded Status:** Value of the Status of the currently approved observation after approval of a new observation. The system will only update the observation that last updated the header nonconformity and only if it has the same Status as the one selected to approve the new 'current' observation.

You can select any status value, if it is attached to an approved or superseded system code.

**Note:** Select a status with an approved system code if you still want the user to make changes to the observation. With system status approved you can unprotect fields using the Nonconformities tab of the **Revision Control Setup** screen.

- **Re-Inspection Status:** Value of the status of new observations when created for a re-inspection of an existing nonconformity. Used for automatically generated observations during the release of PM or Maintenance Pattern work orders. Also, used when manually creating a new observation for an existing nonconformity on the **Nonconformity Observations** screen.
- **Auto Approve Status:** At work order closing automatically set the status of any unfinished observation associated with the work order. Only works if the observation was created for the work order or if the observation was for re-inspection and the record was updated. Also, see the setting for the related **Auto Skip Status**. If you leave this value blank and **Use Observation Status** is Yes, the system will prevent closing the work order.
- **Auto Skip Status:** At work order closing, automatically set the status of any observation associated with the work order for re-inspection. Only works if the record was not updated (skipped). Also, see the setting for the related **Auto Approve Status**. If you leave this value blank and **Use Observation Status** is Yes, the system will prevent closing the work order.
- 4 **Include Condition for Re-Inspection:** If selected, the system will copy the values of **Severity, Intensity, Size, Importance,** and **Next Inspection Date Override** from the related nonconformity header to the observation when a new observation is created. Otherwise, these fields will remain blank on the new observation.

- 
- 5 **Previous Observation Count:** Determines how many other, previous observations for the same nonconformity will be displayed on the observations comments and documents popup. Value ranges from 0 to 999999. If you leave this blank the system assumes 0.

## Nonconformities Setup – Status Dependencies tab

When an observation reaches a certain status, you may also want to change the header status at the same time. For example, when the first observation goes to status 'approved', the header nonconformity status should go from 'open' to 'open and verified'. You can use this tab to setup these status dependencies. The tab has the following important attributes:

- **Observation Status:** Select the status of the observation at which point the related header nonconformity status change should also be applied.
- **Nonconformity Status:** Select the status that should be applied to the nonconformity, when the related **Observation Status** is selected on an observation of that nonconformity and the observation is saved.
- **Only if Nonconformity Status Is:** Leave this field blank if you want the nonconformity status change to be applied unconditionally when an observation status change is saved. If you have a status progression defined for your nonconformities, then it is likely that you want to use this field. If your work flow prescribes nonconformities to go from 'open' to 'open and verified' to 'temporary repair' and/or 'final repair' and then lastly to 'closed'. When the first observation goes to 'approved', a newly defined nonconformity at 'open' status should automatically go to the 'open and verified' status. At some point you apply a temporary repair for this nonconformity and you change the status of the nonconformity to represent this. Then later a new observation is created for a re-inspection and you approve the findings of this observation. At that moment, you likely do not want the header status to return to 'open and verified'. In that case, you use **Only if Nonconformity Status Is** and enter 'open' in this field.

## Nonconformity automatic re-inspection

New observations for nonconformities that must be re-inspected can be automatically created. This will only be applicable for open nonconformities. Once closed the nonconformity is excluded from this process.

Set up the re-inspection as follows:

### PM Schedules – Equipment tab

The **Equipment** tab on the **PM Schedules** screen has the following important attributes related to nonconformities:

- **Include Nonconformities:** Select this check box if you want new observations for re-inspection of open nonconformities of the equipment associated with the released PM work order.
- **Due Nonconformities Only:** Select this check box if you only want new observations created for nonconformities that are due re-inspection.

**Note:** Even though it may sound obvious that you should select this option, the downside is that the inspector will not see nonconformities on the work order that are present, but not due for re-inspection. The inspector may be confused if he comes across an already documented nonconformity during the re-inspection, that is not on his or her list. And this then may lead to duplicate nonconformities. Instruct your inspectors on this decision so they know not to look for nonconformities not on their list.

### PM Schedules – Nonconformities tab

The **Nonconformities** tab on the **PM Schedules** screen serves as a filter mechanism. Once you have selected **Include Nonconformities** on the **Equipment** tab (see above) all nonconformities associated with the equipment of the PM work order will be included, if this screen is empty. By adding records on this screen, you are in essence limiting that list of nonconformities to only those that match the criteria added to this screen. The tab has the following important attributes related to nonconformities:

- **Equipment Class:** Select an equipment class if your work order inspects a certain type of equipment, for example fire extinguishers.
- **Nonconformity Class:** Select a nonconformity class if your work order inspects a certain class of nonconformities.
- **Type:** Select a nonconformity type if your work order inspects a certain nonconformity type, for example wood rot or corrosion.
- **Type Class:** Select a nonconformity type class if your work order inspects a certain class of nonconformity type, for example rot or decay.
- **Severity:** Select a severity if you want to inspect nonconformities with a certain severity.
  - Other fields available for selection that serve similar purpose:
  - Department
  - Part
  - System Level
  - Assembly Level
  - Component Level
  - Material Type
  - Intensity
  - Size From
  - Size To
  - Importance
  - Priority
  - All nonconformity User Defined Fields

**Note:** Enter as many records as you like on this screen. Nonconformities will be included if they match all entered attributes of at least one record on this screen. As noted earlier, if no records are present on this screen all nonconformities of the equipment of the work order will be included.

See the **Generate WOs** screen for further details on how the system determines which nonconformities will be included on the generated preventive maintenance work orders.

## Maintenance Patterns – Equipment tab

Like the **Equipment** tab on the **PM Schedules** screen.

## Standard WO – Nonconformities tab

Like the **Nonconformities** tab on the **PM Schedules** screen.

**Note:** This tab only plays a role when releasing preventive maintenance work orders based on maintenance patterns.

## Generate WOs screen

Once setup is completed the automatic re-inspections are generated with the **Generate WOs** screen, or via any other screens in Infor EAM that release preventive maintenance work, like for example the meter reading screens.

New observations are created for all nonconformities if the nonconformity satisfies the following criteria:

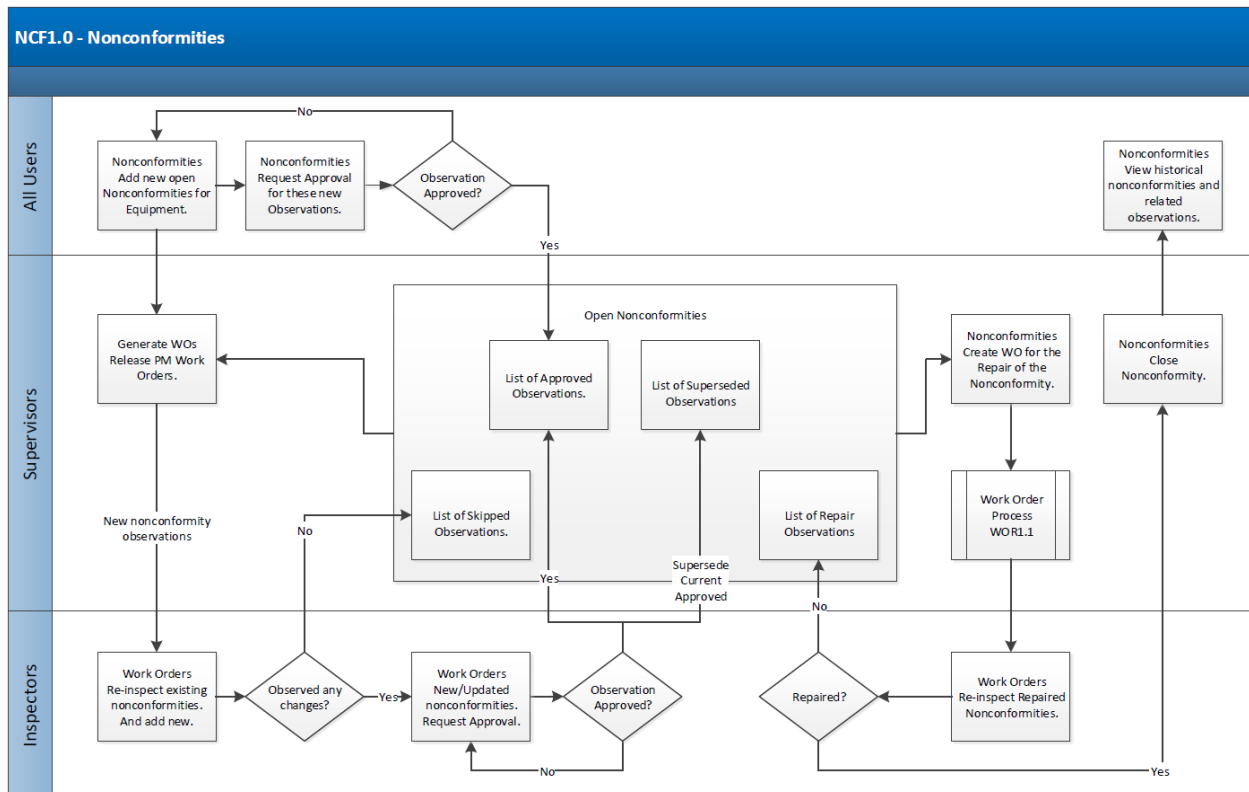
- Nonconformity is associated with
  - The equipment of the work order.
  - A child of the equipment of the work order.  
A preventive work order against the building will include nonconformities of the rooms inside that building. Be careful with the choice for the parent equipment. The higher you go in the hierarchy the longer it will take to find all nonconformities.
  - Equipment of the route of the work order.
  - Additionally, for linear equipment, the nonconformity must be at least partially located on the pm work order. Note that if the nonconformity does not have the from and to filled in, it will always be included.
- Nonconformity status (system status) must be 'Open'.
- Additionally, if **Due Nonconformities Only** is selected, only include nonconformities where the **Next Inspection Date Override**, or if blank the **Next Inspection Date**, is less than or equal to the PM work order **Due Date** or the **System Date**.

The status assigned to the new observations is controlled by the **Re-Inspection Status** setting on the **Nonconformities Setup** screen.



# Nonconformities process flow example

The process you want to implement around nonconformities largely depends on your detailed requirements and therefore may vary greatly from this suggested flow. Still we did want to share this possible flow with you.



## Nonconformity alerts

The following base alert is provided:

### Create Work Order for Nonconformities Alert

This alert creates a work order for selected nonconformities based on the recommended repair date approaching.

#### Alert grid definition

Description	Field Labels	Data Type
Nonconformity	Nonconformity	Upper case
Organization	Organization	Upper case
Description of the Nonconformity	Description	Mixed case
Equipment Code	Equipment Code	Upper case
Equipment Organization	Equipment Organization	Upper case
Equipment Description	Equipment Description	Mixed case
Status Description	Status	Mixed case
Nonconformity Type	Nonconformity Type	Upper case
Nonconformity Type Organization	Nonconformity Type Org.	Upper case
Nonconformity Type Description	Nonconformity Type Description	Mixed case
Nonconformity Type Class	Nonconformity Type Class	Upper case
Nonconformity Type Class Organization	Nonconformity Type Class Org.	Upper case
Nonconformity Type Class Description	Nonconformity Type Class Description	Mixed case

Description	Field Labels	Data Type
Nonconformity Type Standard WO	Nonconformity Type Standard WO	Upper case
Priority Code	Priority Code	Upper case
Priority Description	Priority	Mixed case
Severity Description	Severity	Mixed case
Intensity Description	Intensity	Mixed case
Size	Size	Number
Importance Description	Importance	Mixed case
Condition Score	Condition Score	Number
Condition Index Description	Condition Index	Mixed case
Earliest of Next Inspection Date and Next Inspection Date Override	Next Inspection Date	Date
Recommended Repair Date	Recommended Repair Date	Date
Total Estimated Costs	Total Estimated Costs	Currency
From Point	From Point	Number
From Point Ref. Description	From Point Ref. Description	Mixed case
From Point Geographical Ref.	From Point Geographical Ref.	Mixed case
To Point	To Point	Number
To Point Ref. Description	To Point Ref. Description	Mixed case
To Point Geographical Ref.	To Point Geographical Ref.	Mixed case
Nonconformity UDF 01	User Defined Field 01	Mixed case
Nonconformity UDF 02	User Defined Field 02	Mixed case
Nonconformity UDF 03	User Defined Field 03	Mixed case
Nonconformity UDF 04	User Defined Field 04	Mixed case
Nonconformity UDF 05	User Defined Field 05	Mixed case
Nonconformity Type UDF 01	Type User Defined Field 01	Mixed case
Nonconformity Type UDF 02	Type User Defined Field 02	Mixed case
Nonconformity Type UDF 03	Type User Defined Field 03	Mixed case
Nonconformity Type UDF 04	Type User Defined Field 04	Mixed case
Nonconformity Type UDF 05	Type User Defined Field 05	Mixed case
Parameter Default Recipient. Recipient of the alert notification.	Email Recipient	Upper case

Description	Field Labels	Data Type
Recommended Repair Date minus Parameter LeadTime.	Work Order Release	Date

**Note:** The system converts all string parameters to uppercase before they are used in functions and comparisons.

## Grid conditions

Grid returns nonconformity records if they satisfy the following criteria:

- **Nonconformity Type** must have a **Standard WO** specified if parameter TypeHasStandardWO is 'YES'. Otherwise, **Standard WO** can be specified or be blank.
- Nonconformity
  - **Status** is 'Open'.
  - **Type** is not blank.
  - **Recommended Repair Date** is not blank.
  - **Recommended Repair Date** minus parameter LeadTime (= Work Order Release in the grid) is smaller than or equal to today.
  - Does not already have a work order generated by this alert, for the nonconformity.

## Alert parameters

Parameter	Description	Type	Default
TypeHasStandardWO	The <b>Nonconformity Type</b> of the selected nonconformity must have a <b>Standard WO</b> associated.	String	Yes
LeadTime	Number of days before the <b>Recommended Repair Date</b> on which the work order must be created.	Number	14
EmailLanguage	To determine the language of descriptions included in the alert.	String	EN
DefaultRecipient	User code of the email recipient.	String	R5