Quality Issues

Release 15.2.1.2

CONTACT Software

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Contents

CHAPTER 1

How to read this book

The manuals for this product all are according to the same principle.

You can get the maximum support working with this product when you consider the following advice:

If you are not familiar with the functional principle of this product, please read the manaual *CONTACT Elements: Client Reference* first. There you find the description of all the basic functions and the operating principles of this product.

The manual at hand assumes knowledge of the manual *CONTACT Elements: Client Reference*.

Note: This user manual describes the standard installation. Your administrator can custom-configure the standard settings. Therefore for questions about installation-specific representations and configurations for your system, please contact your administrator.

CHAPTER 2

Introduction

Systematic error and defect management as part of the product or project lifecycle is a crucial aspect of quality management. The integrated recording, processing and tracking of corresponding issues with *CONTACT Quality Issues* also allows targeted corrective measures to be planned and implemented. This reduces costs and lead times and increases customer satisfaction.

With the building block *CONTACT Quality Issues* you can manage defects and control their correction. This building block assists you with documenting defects in their respective context (projects, products, part, etc.) in a complete and structured way. Through appropriate actions which you can assign to the defect entry, you can rectify defects in a targeted and efficient way. Over time, this leads to the creation of a knowledge database that helps you to avoid defects and thus to improve the quality of the product over the long term.

CONTACT Quality Issues is not limited only to defects concerning product quality, but can also be used equally well for process errors, such as communication or assembly errors. The term *defect* has come to represent several, often synonymously used terms, i.e. a defect entry can also refer to a deficiency, a claim or a complaint.

To be precise, you can use this building block to capture, evaluate and process defects. Each defect entry is automatically assigned a unique, global number in the system and can be correlated with other specialised objects such as projects, products or parts. In particular, you can assign rectification actions to a defect entry.

You can

- categorise and prioritise defect entries
- assign an editor to a defect entry
- subdivide complex defect entries into individually detailed defects

The processing of a defect entry is controlled by a status network (New, Execution, etc.). With this network you can manage the different degrees of processing development of each individual defect.

CHAPTER 3

System access

The *Quality* —> *Defects* menu item in the navigation tree takes you to where you can manage defect entries. Using the appropriate standard operations, this menu item enables you to create new defect entries or research defect entries that have already been captured, e.g. to process these or for information purposes.

Additional access is provided to you through the different relational contexts of a defect entry. You can find all defect entries assigned to a product, project or item in the corresponding *Defects* tab of the data sheet of one such context object. In a context such as this, you can also capture new defect entries which are thereby automatically assigned to the context object. For a complete overview of which specialised objects a defect entry can be correlated with, see section *Relationships* (page 9).

CHAPTER 4

Master data

In the standard version, defect entries are described using the following attributes, which are shown in the data sheet and the table listing the defects. One should take into consideration that some of the statements concerning *New/Change* and *Search* can differ.

- ***ID*** The *ID* uniquely identifies a defect entry. It is automatically assigned when a defect entry is created and can no longer be changed afterwards.
- ***Status*** Name of the status (Editing, Finished, etc.) currently held by the defect entry. This attribute can only be changed via the *Status change* operation (for information on this, see *Status network* (page 6)). When being created, the defect entry automatically has the *Editing* status.
- ***Name*** The name is a short contextual description of the defect and is a mandatory field.
- ***Parent Defect*** Reference to the parent defect if it is a detailed defect. You can select this either using a catalogue or it is automatically entered by the system if the data is created in the relational context of a parent defect.
- ***Product*** Reference to the product if it is a product defect. You can select the product either using a catalogue or it is automatically entered by the system if the data is created in the relational context of a parent defect.
- ***Project No.*** Reference to a project if the defect occurs in the context of a project. You can select the project either using a catalogue or it is automatically entered by the system if the data is created in the relational context of a project.
- ***Category and :guilabel:'subcategory*** Category and subcategory of the defect. You use a two-level structure catalogue to select the category (e.g. defect, deficiency or claim) and the subcategory (e.g. function failure or quality deficiency).
- ***Item*** Reference to an item master record if the defect is from a component or an assembly. You can select the item either using a catalogue or it is automatically entered by the system if the data is created in the relational context of the item concerned.
- ***Error code*** Error code of the defect. You select the error code using a catalogue.
- ***Error type*** Type of error. You select the type of error (e.g. product defect or process error) using a catalogue.
- ***Priority*** Priority concerning the processing of the defect. You select the priority of the defect (e.g. low, medium or high) using a catalogue.
- ***Source*** Source of the defect. You select the source of the defect (e.g. customer or production) using a catalogue.
- ***Serial number*** If the defect is a product defect, you can enter the serial number of the defective product or the defective product component here.
- ***Responsible*** Name of the user responsible for rectifying the defect. You select the responsible person using a catalogue.
- ***Editor*** Name of the user who should process the defect entry. You select the editor using a catalogue.

- ***Description*** Description of the defect. You can enter all the relevant details as free text here.
- ***Effort (Hrs.)*** Estimated labour costs that will be required to rectify the defect.
- ***Cost*** Estimated material costs that will be required to rectify the defect.
- ***Currency*** Here you determine the currency in which the costs are calculated. The default value is Euro (EUR). You select the currency using a catalogue.
- ***Cause*** Possible cause of the defect. Enter the cause as free text on the *Details* tab of the defect data sheet.
- ***Impact*** Possible impact of the defect. Enter the impact as free text on the *Details* tab of the defect data sheet.
- ***Created by*** Name of the user who created the defect entry. The attribute is automatically entered by the system and can be found in the data sheet on the *Change log* tab.
- ***Created on*** Date and time when the defect entry was created. The attribute is automatically entered by the system and can be found in the data sheet on the *Change log* tab.
- ***Last changed by*** Name of the user who last changed the defect entry. The attribute is automatically entered by the system and can be found in the data sheet on the *Change log* tab.
- ***Last changed on*** Date and time when the defect entry was last changed. The attribute is automatically entered by the system and can be found in the data sheet on the *Change log* tab.

CHAPTER 5

Status network

A defect entry can have different statuses. The status of a defect entry provides information about which processing status the defect entry is currently in. Moreover, for each status, you can specify which subsequent status can be selected.

5.1 Status Definition

New The defect entry has just been created and its data is being edited.

Evaluation The defect entry is analysed in order to determine if it will be executed, rejected, or discarded.

Execution This status indicates that the defect entry will continue to be processed until a solution for it is identified and implemented successfully.

Discarded The defect entry is assigned the *Discarded* status if the entry was made by mistake (system interrelationships were not fully understood by the creator).

Rejected The defect entry is set to the *Rejected* status if it transpires that the solution is inefficient or disproportional.

Fixed The defect entry is set to the *Fixed* status if its solution was implemented successfully.

5.2 Status Transitions

The graphic below shows all the statuses defined in the system as well as each of the status transitions specified by the system.

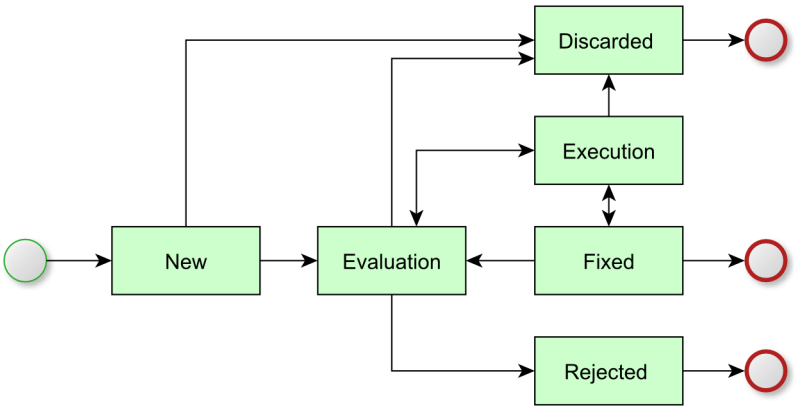

Fig. 5.1: Status network of a defect entry

5.2.1 Rules and automatic operations for parent defects

- A parent defect entry can only then change to the *Evaluation* status if all of its detailed defects have taken on the *Evaluation* status beforehand.
- A parent defect entry can only then change to the *Fixed* status if all of its detailed defects have taken on the *Fixed* or *Discarded* status beforehand.
- If a parent defect entry is set to the *Discarded* status, all of its detailed defects are automatically set to the *Discarded* status.
- If a parent defect entry is set to the *Rejected* status, all of its detailed defects are set automatically to the *Rejected* status.

5.2.2 Rules and automatic operations for detailed defects

- The entry of a detailed defect can only then be set to the *Execution* status if its parent defect entry has the *Execution* status.
- The entry of a detailed defect can **not** be set to the *Evaluation* or *Execution* status if its parent defect entry has the *Fixed* status.

CHAPTER 6

Operations

In addition to standard operations such as *New...*, *Change...*, *Search...*, etc., you can run the *Defect overview* operation in the context menu of the defect entry.

The *Defect overview* operation opens a two-part view of the object relationships of the selected defect entry. The upper section shows you, in the form of subordinate structure nodes, all the actions and detailed defects with which the selected defect entry has a relationship.

In the lower section of the structure diagram, there is a table listing all of the other specialised objects (e.g. documents or engineering changes) to which the defect entry has been assigned. For information on this, also see section *Relationships* (page 9).

All specialised objects that can be displayed in this structure overview can also be displayed as a tab in the data sheet of the defect entry.

CHAPTER 7

Relationships

A defect entry can be correlated with other specialised objects such as projects, products or items. In particular, you can assign rectification actions to a defect entry. The graphic below shows with which specialised objects a defect entry can be correlated in the standard version.

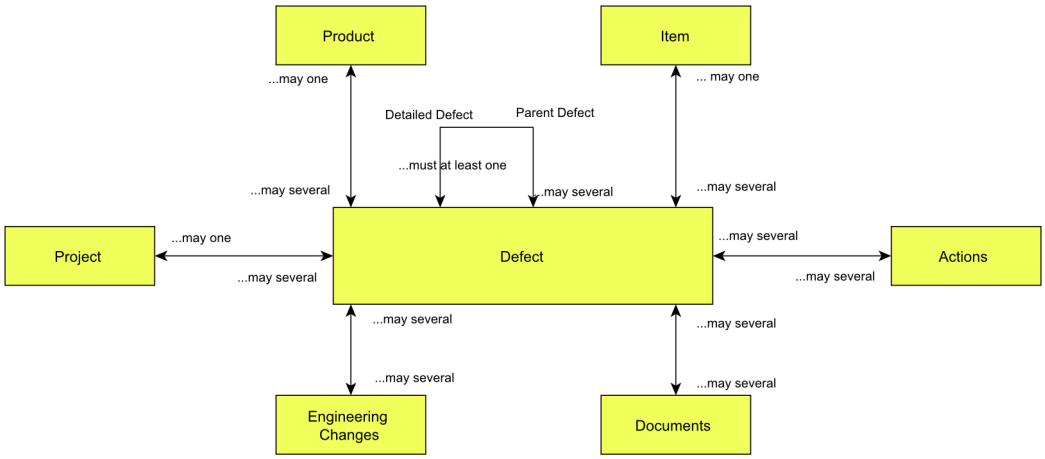

Fig. 7.1: Defect entry relationships

The network of relationships can be differentiated into two relationship types. On the one hand, there are relationships in which a defect entry can be optionally assigned to exactly one specialised object of one type (e.g. product) (... may one), on the other hand, there are relationships in which a defect entry can be optionally assigned to several specialised objects of the same type (e.g. documents) (... may several). The relationships shown in the graphic are described individually below:

- ***Item*** You can assign one defect entry to exactly one item. A catalogue selection in the master data sheet (see *Master data* (page 4)) is used to make the assignment.
- ***Product*** You can assign one defect entry to exactly one product. A catalogue selection in the master data sheet (see *Master data* (page 4)) is used to make the assignment.
- ***Project*** You can assign one defect entry to precisely one project. A catalogue selection in the master data sheet (see *Master data* (page 4)) is used to make the assignment.
- ***Parent Defect*** You can assign one defect entry to exactly one parent defect. A catalogue selection in the master data sheet (see *Master data* (page 4)) is used to make the assignment.
- ***Detailed Defect*** You can subdivide a defect entry into several detailed defects. There are different options for assigning a detailed defect to a parent defect. One option is to create a new detailed defect in an identically named tab of the parent defect data sheet, and thereby to assign it automatically too.
- ***Actions*** You can assign several actions to a defect entry. There are different options for assigning an action to a defect entry. One option is to first create an action via the *Quality –> New action* menu item and

then assign this to the defect entry via drag & drop on the *Actions* tab.

- ***Documents*** You can assign several documents to one defect entry to describe the defect entry or its possible solutions in more detail. There are different options for assigning a document to a defect entry. One option is to call up the *Defects* <-> *New documents* operation in the *Documents* tab of the defect data sheet and assign an existing document to the defect entry.
- ***Engineering Changes*** Several engineering changes which are required to rectify the defect can be assigned to one defect entry. There are different options for assigning an engineering change to a defect entry. One option is to create a new engineering change in the identically named tab of the defect entry data sheet, and thereby to assign it automatically.

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