leads to delay in the repair process. Miscommunication amongst the people involved in the repair process may lead to further delay in the repair process.

[0006] As such, manual methods for managing the repair processes are prone to delays resulting in inefficiencies. Managing the repair processes has logistical challenges, but relying on manual methods may further result in higher costs, lost times, and excessive waste.

[0007] Accordingly, there is a need for an improved system that enables efficiently removing items from worksites, processing necessary steps as required, and returning the items to the worksites.

Summary

[0007a] In a first example, the present disclosure provides an automated inventory control system, comprising: one or more storage devices containing a plurality of storage locations for storing objects; a first predefined location for receiving one or more objects, the first predefined location including a sensing system configured to sense when an object is deposited at the first predefined location; a second predefined location for receiving one or more objects; the second predefined location including a sensing system configured to sense when an object is deposited at the second predefined location; one or more processors configured to: when an object is deposited at the first predefined location, automatically assign a first status to the object and cause transmission of an alert indicating the first status of the deposited object, track a plurality of transactions associated with the deposited object after a user checks the deposited object out of the first predefined location, and when an object is deposited at the second predefined location, automatically assign a second status to the object and cause transmission of an alert indicating the second status of the deposited object.

[0007b] In a second example, the present disclosure provides a method for an automated inventory control system, comprising the steps of: storing an object in a storage location of a storage device; receiving the object in a first predefined location; based on receipt of the object in the first predefined location, automatically assigning a first status to the object; transmitting an alert indicating the first status of the deposited object; checking the deposited object out of the first predefined location; tracking a plurality of transactions associated with the deposited object after the user checks the deposited object out of the first predefined location; receiving the object in a second predefined location; based on receipt of the object in the second predefined location, automatically assigning a second status to the object;

transmitting an alert indicating the second status of the deposited object; checking the deposited object out of the second predefined location; receiving the object in the storage location of the storage device.

[0007c] In a third example, the present disclosure provides a non-transitory computer-readable medium storing executable instructions for carrying out a process comprising the steps of: determining that an object is present in a storage location of a storage device; determining that the object is present in a first predefined location; based on the determination that the object is present in the first predefined location, automatically assigning a first status to the object; causing the transmission of an alert indicating the first status of the deposited object; tracking a plurality of transactions associated with the deposited object after the deposited object is checked out of the first predefined location; determining that the object is present in a second predefined location; based on the determination that the object is present in the second predefined location, automatically assigning a second status to the object; causing the transmission of an alert indicating the second status of the deposited object; determining that the object is present in the storage location of the storage device after the deposited object is checked out of the second predefined location.

[0007d] In an aspect, the present disclosure refers to an automated inventory control system, comprising:

one or more storage devices containing a plurality of storage locations for storing objects;

a first predefined location for receiving one or more objects, the first predefined location including a sensing system comprising one or more cameras configured to obtain images of the plurality of storage locations, and/or one or more RF sensors configured to detect RFID tags, wherein the sensing system is configured to sense when an object is deposited at the first predefined location;

a second predefined location for receiving one or more objects; the second predefined location including a sensing system comprising one or more cameras configured to obtain images of the plurality of storage locations, and/or one or more RF sensors configured to detect RFID tags, wherein the sensing system is configured to sense when an object is deposited at the second predefined location;

one or more processors configured to:

when an object is deposited at the first predefined location, automatically assign a first status to the object, cause transmission of a first alert indicating the first status of the deposited object,

distribute the first alert to users in response to the deposited object, wherein the first alert contains information regarding process instructions associated with the assigned first status, and

track with the sensing system a plurality of transactions associated with the deposited object based on data including object issue and return data, object statuses, user access, and/or work location, after a user checks the deposited object out of the first predefined location, and

when an object is deposited at the second predefined location, automatically assign a second status to the object, cause transmission of a second alert indicating the second status of the deposited object, and

distribute the second alert to users in response to the deposited object, wherein the second alert contains information regarding process instructions associated with the assigned second status.

[0007e] In an aspect, the present disclosure refers to a method for an automated inventory control system, comprising the steps of:

storing an object in a storage location of a storage device;

receiving the object in a first predefined location, the first predefined location including a sensing system comprising one or more cameras configured to obtain images of the plurality of storage locations, and/or one or more RF sensors configured to detect RFID tags;

based on receipt of the object in the first predefined location, automatically assigning a first status to the object;

transmitting an alert indicating the first status of the deposited object;

distributing the first alert to users in response to the deposited object, wherein the first alert contains information regarding process instructions associated with the assigned first status;

checking the deposited object out of the first predefined location;

tracking with the sensing system a plurality of transactions associated with the deposited object based on data including object issue and return data, object statuses, user access, and/or work location, after the user checks the deposited object out of the first predefined location;

receiving the object in a second predefined location, the second predefined location including a sensing system comprising one or more cameras configured to obtain images of the plurality of storage locations, and/or one or more RF sensors configured to detect RFID tags;

based on receipt of the object in the second predefined location, automatically assigning a second status to the object;

transmitting a second alert indicating the second status of the deposited object;

distributing the second alert to users in response to the deposited object, wherein the second alert contains information regarding process instructions associated with the assigned second status;

checking the deposited object out of the second predefined location;

receiving the object in the storage location of the storage device.

[0007f] In an aspect, the present disclosure refers to a non-transitory computer-readable medium storing executable instructions for carrying out a process comprising the steps of:

determining that an object is present in a storage location of a storage device;

determining that the object is present in a first predefined location, the first predefined location including a sensing system comprising one or more cameras configured to obtain images of the plurality of storage locations, and/or one or more RF sensors configured to detect RFID tags;

based on the determination that the object is present in the first predefined location, automatically assigning a first status to the object;

causing the transmission of a first alert indicating the first status of the deposited object;

distributing the first alert to users in response to the deposited object, wherein the first alert contains information regarding process instructions associated with the assigned first status;

tracking with the sensing system a plurality of transactions associated with the deposited object based on data including object issue and return data, object statuses, user access, and/or work location, after the deposited object is checked out of the first predefined location;

determining that the object is present in a second predefined location, the second predefined location including a sensing system comprising one or more cameras configured to obtain images of the plurality of storage locations, and/or one or more RF sensors configured to detect RFID tags;

based on the determination that the object is present in the second predefined location, automatically assigning a second status to the object;

causing the transmission of a second alert indicating the second status of the deposited object;

distributing the second alert to users in response to the deposited object, wherein the second alert contains information regarding process instructions associated with the assigned second status;

determining that the object is present in the storage location of the storage device after the deposited object is checked out of the second predefined location.

Brief Description of Drawings

[0007d] FIG. 1 illustrates an exemplary automated tool control system according to example aspects of the subject technology.

[0007e] FIGS. 2A and 2B illustrate various exemplary tool control storage devices.

[0007f] FIG. 3A shows a detailed view of one drawer of the tool control storage device in an open position.

[0007g] FIG. 3B shows a perspective view of an imaging subsystem in the tool control storage device according to an embodiment.

[0007h] FIG. 4A shows a schematic diagram illustrating an exemplary hierarchy structure of automated tool control system.

[0007i] FIG. 4B shows a schematic diagram illustrating an exemplary hierarchy structure of automated tool control system.

[0007j] FIG. 5 conceptually illustrates an exemplary electronic system with which some implementations of the subject technology can be implemented. Description

[0008] In the following detailed description, numerous specific details are set forth by way of examples in order to provide a thorough understanding of the relevant teachings. However, it should be apparent to those skilled in the art that the present teachings may be practiced without such details. In other instances, well known methods, procedures, components, and/or circuitry have been described at a relatively high-level, without detail, in order to avoid unnecessarily obscuring aspects of the present teachings.

[0009] To address the issues described in the Background, automated tool control systems have been developed which automatically manage objects, such as tools, according to the status assigned to the object. The various systems and methods disclosed herein relate to automated tool control systems used which manage objects with assigned status.

[0010] Reference now is made in detail to the examples illustrated in the accompanying drawings and discussed below.

[0011] FIG. 1 illustrates an exemplary automated tool control system 100 according to example aspects of the subject technology. The automated control system 100 includes a computing device 102, a database 104, tool control storage devices 106A, 106B, and 106C (hereinafter collectively referred to as "tool control storage devices 106"), and a network 108. In some aspects, the automated control system 100 can have more or fewer computing devices (e.g., 102), databases (e.g., 104), and/or tool control storage devices (e.g., 106A, 106B, and 106C) than those shown in FIG. 1.

[0012] The computing device 102 can represent various forms of processing devices that have a processor, a memory, and communications capability. The processor may execute computer instructions stored in memory. The computing device 102 is configured to communicate with the database 104 and the tool control storage devices 106 via the network