

Title (en)

A METHOD FOR MANAGING AND CONTROLLING WASTE CONTAINERS, AND A WASTE COLLECTION SYSTEM

Title (de)

VERFAHREN ZUR VERWALTUNG UND STEUERUNG VON ABFALLBEHÄLTERN UND ABFALLSAMMELSYSTEM

Title (fr)

PROCÉDÉ DE GESTION ET DE COMMANDE DE POUBELLES, ET SYSTÈME DE RAMASSAGE DES ORDURES

Publication

**EP 4315206 A1 20240207 (EN)**

Application

**EP 22715714 A 20220321**

Priority

- IT 202100006863 A 20210322
- IB 2022052545 W 20220321

Abstract (en)

[origin: WO2022200986A1] The present invention relates to a method for managing and controlling waste containers in a waste collection system (100), wherein said waste collection system (100) comprises: - a plurality of waste containers (20), wherein each waste container (20) comprises a respective monitoring device (1), - at least one server (4) operatively connected to each monitoring device (1), - at least one optimization unit (23) operatively connected to said server (4) and to each monitoring device (1), - at least one transport means (21) for collecting the waste from said plurality of waste containers (20), wherein said transport means (21) is operatively connected to said optimization unit (23) by means of a data receiving module (22), wherein each monitoring device (1) comprises -data transceiver means (2) operatively connected to said server (4) for processing and storing data, and to said optimization unit (23), -a processor (3) connected to said data transceiver means (2), -at least one level sensor (5) for detecting, over time, a filling level of the respective waste container (20) and connected to said processor (3), Wherein, in a filling cycle of each container (20), the filling level grows from a minimum filling level to at least one threshold filling level, said method comprising the steps of: a1-detecting, in real time or at preset time intervals, by means of said monitoring device (1), the filling level of each container (20) for each filling cycle, a2-transmitting, by means of said monitoring device (1), each filling level detected to said server (4), a3-storing, on said server (4), each filling level detected, b1-setting, by means of said optimization unit (23), a threshold filling level for each container (20), c-generating, by means of said optimization unit (23), an expected filling parameter for each waste container (20) for a current filling cycle, wherein said expected filling parameter is representative of at least one expected filling level and of an expected time instant or interval in which said expected filling level will reach said threshold filling level, wherein said expected filling level is determined based on an analysis of the filling levels stored on said server (4) related to at least one filling cycle prior to said current filling cycle, e-generating, by means of said optimization unit (23), a waste collection path having a number of collection stages equal to the number of said expected filling parameters generated, having an expected filling level, which is at least equal to said expected filling threshold, f-sending, to said at least one transport means (21), by means of said optimization unit (23), said waste collection path.

IPC 8 full level

**G06Q 10/04** (2023.01); **G06Q 10/08** (2024.01)

CPC (source: EP)

**G06Q 10/04** (2013.01); **G06Q 10/08** (2013.01); **B65F 2210/108** (2013.01); **B65F 2210/128** (2013.01); **B65F 2210/138** (2013.01); **B65F 2210/1443** (2013.01); **B65F 2210/148** (2013.01); **B65F 2210/168** (2013.01); **B65F 2210/20** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022200986 A1 20220929**; EP 4315206 A1 20240207; IT 202100006863 A1 20220922

DOCDB simple family (application)

**IB 2022052545 W 20220321**; EP 22715714 A 20220321; IT 202100006863 A 20210322