

## Software Error (Bug)

Quality Control Training Programs

### **CyberLogitec Vietnam Co., Ltd.**

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## Lesson 06

### **6.1 What is a Software Error?**

6.2 Common Sources of Errors?

6.2 Common Types of Software Errors

6.3 Finding, Reproducing and Analyzing a Software Errors

6.4 Reporting a Software Errors

6.5 A common Bug Life

# What is a Software Error (Bug) ?

- A bug is an error, flaw, failure, or fault in a computer program or system that causes it to produce an incorrect or unexpected result, or to behave in unintended ways.
- A bug is present when the program does not do what its user reasonably expects it to do.

***The existence of software errors reflects an impediment on the quality of the product but does not necessarily imply that the developers are incompetent.***

# What is a Software Error (Bug) ?

## EXAMPLE

Tel: (999)999-9999 / Fax: (999)999-9999  
Email: [nick@leverlogistics.com](mailto:nick@leverlogistics.com) / [www.igrlogistics.com](http://www.igrlogistics.com)  
19515 S. VERMONT AVE. TORRANCE,  
CA 90502

**GUARANTEE OF CHARGES (GOC)**

IGR FILE NUMBER: OIF100877  
CONTAINER NUMBER: CNT01 / CNT02 / CNT03 / CNT04 / CNT05

B/L NUMBER: HBL\_TETS\_0508

We, \_\_\_\_\_ hereby guarantee in full for any of the following charges arising: \_\_\_\_\_

- 1) \_\_\_\_\_ Inspection fees or Costs of examination arising from delays caused by CFIA, CBSA and any other government authority.
- 2) \_\_\_\_\_ Charges of demurrage, equipment detention and storage fee as levied by either terminal, rail or steamship lines exceeds the free time allowed due to late presentation of endorsed Original Bills of Lading, payment, and delays caused by any other issue.
- 3) \_\_\_\_\_ Charges of any pre-pull, late return, cleaning, and damage of containers.

We acknowledge and understand that these charges are imposed by carriers, terminals, railway, warehouses, custom authorities, and other government agencies as the case may be and are not charges under the control of or for the benefit of InGlobal Resources Inc., and that any and all such charges shall be paid by the guarantor immediately when due without deduction, deferment, or set-off of any kind, including for any alleged claim or counterclaim.

Signed by: \_\_\_\_\_ Signature: \_\_\_\_\_  
Company: \_\_\_\_\_ Date: \_\_\_\_\_

**IGR InGlobal Resources Inc.**  
Supply Chain Solutions

**Where is data from?**

Tel: 2016627800 / Fax: 2016629068  
Email: [nick@leverlogistics.com](mailto:nick@leverlogistics.com) / [www.igrlogistics.com](http://www.igrlogistics.com)  
TWO EXECUTIVE DR. SUITE # 205  
FORT LEE, NJ 07024

**GUARANTEE OF CHARGES (GOC)**

IGR FILE NUMBER: CFS2110000048 **Filing No ?**  
CONTAINER NUMBER: FCIU5382503 / FCIU5382608 / ABCJFJF / ABCDE1 / ABCDE2 / ABCDE3 / ABCDE4 /  
ABCDE5 / ABCDE6 / ABCDE7 / ABCDE8 / TGUU1234567

B/L NUMBER: CANHTEST88233 **HB/L No or MB/L No ?**

We, \_\_\_\_\_ hereby guarantee in full for any of the following charges arising:

- 1) Inspection fees or Costs of examination arising from delays caused by CFIA, CBSA and any other government authority.
- 2) Charges of demurrage, equipment detention and storage fee as levied by either terminal, rail or steamship lines exceeds the free time allowed due to late presentation of endorsed Original Bills of Lading, payment, and delays caused by any other issue.
- 3) Charges of any pre-pull, late return, cleaning, and damage of containers.

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Signed by: \_\_\_\_\_ Signature: \_\_\_\_\_  
Company: \_\_\_\_\_ Date: \_\_\_\_\_

# What is a Software Error (Bug) ?

## EXAMPLE

#7346

CATEGORY: Testing > Manual

RELATED RQMT: RELATED UI: WATCHER:

ITERATION: Internal

PROCESS: Test Case Creation

DUE DATE: Aug 13, 2022

EFFORT POINT: 100

STATUS: Open

CLASSIFY: Public

Success! Saved successfully!

ADD TIME WORKED: An Thien N

Phase Name: Confirmation

Job Detail

Effort Estimation		Time Worked			
PIC	Phase Name	Job Category	Working Time	Point	Date
An Thien Nguyen	Confirmation	Perform Testing	5 Hour	125	Aug 19, 2022
Toan Tran	Confirmation	Gap Analysis	30 Minute	12	Apr 14, 2021

Total: 5 Hour 30 Minute 137

PIC: An Thien Nguyen

Phase Name: Confirmation

Job Category: Perform Testing

Date: 08/19/2022

Time Worked

Hour: 5

Minute: 0





Comment: Leave a comment

Copy Save New Delete

# What is a Software Error (Bug) ?

## EXAMPLE

 [Bug Release V4.7.10][Urgent] [NTL NAIGAI TRANS] OI AMS B/L EDI got the error message

 Edit  Add comment  Assign  More ▾

### ▼ Details

Type:  Incident

Status: **CLOSED** (View Workflow)

Priority:  Urgent

Resolution: Done

Affects Version/s: Ver. 470.10

Fix Version/s: Ver. 470.10

Component/s: None

Labels: None

L1 Category: Problem 

Deploy Request: Not Deployed

Evaluation: NA

Customer: Forwarding

Organizations:

Customer Ticket No: FWSD-850

Internal Watchers: Tran Van Tien, Nguyen Huu Vi, Logistics Helpdesk, Yew Lim, Nguyen Vo Le Tran Huynh, Hanh Nguyen Thi, 김상준 (Sang-Joon Kim), Phong Duong, 최윤석(Yoon Choi)

### ▼ Description

(1) Customer Company: NTL NAIGAI TRANS LINE USA INC.

(http://54.215.241.28:8001/ntl/UserLogin.usr)

(2) User Name: CARLITO JUDE

(3) E-Mail: carlitoj@ntlusa.com

(4) Reported at: zendesk#8035, 8036, 8040

(5) Severity: Urgent

(6) Module Name: Support > EDI > OI AMS B/L EDI

(7) Descriptions:

Hi Dev Team,

When inputting the Verify button and creating a new B/L, an error message pop-up as per the attachment.  
With the default option BL\_SET\_REF\_NO = N, the system should not appear in the message.

Please help us check it.

Thank you.

## Lesson 06

6.1 What is a Software Error?

**6.2 Common Sources of Errors?**

6.3 Common Types of Software Errors

6.4 Finding, Reproducing and Analyzing a Software Errors

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6.6 A common Bug Life

# Common Sources of Bugs?

You will report all of these types of problems.


But it is important to keep straight in your mind, and on the bug report, which type you are reporting.





- Coding Error
- Design Issue
- Requirements Issue
- Documentation/ Code mismatch
- Specification/ Code mismatch
- Framework issue
- Server issue
- Data issue (Database)
- Environment Issue (Browser version, Third-party...)





# What is a Software Error (Bug) ?

## EXAMPLE

 [BINEX] OPUS AWS is very slow

 Edit  Add comment  Assign  More ▾

▼ Details

Type:	 Incident	Status:	<b>CLOSED</b> <a href="#">(View Workflow)</a>
Priority:	 High	Resolution:	Done
Affects Version/s:	None	Fix Version/s:	None
Component/s:	None		
Labels:	None		
Deploy Request:	Not Deployed		
Customer Organizations:	Forwarding		
Customer Ticket No:	FWSD-79		
Internal Watchers:	Logistics Helpdesk, Hanh Nguyen Thi, 김상준 (Sang-Joon Kim), 최윤석(Yoon Choi)		

▼ Description

(1) Customer Company: BINEX LINE CORP. TORONTO  
<http://18.224.90.220:8001/fms/UserLogin.usr#>

(2) User Name & Email: Leanne Lim (leannelim@binexline.com)


(3) Reported: Zendesk#5633

(4) Severity: High

(5) Program Category: Incident

(6) Module Name: Ocean Export > Master B/L > OEM B/L List; Accounting> AR/AP> AR/AP List


(7) Descriptions:





OPUS AWS server is very slow. (OEM B/L List, AR/AP List) 

The problem occurred to all operators in the Korea branch and Import team at LA.  
Kindly check it and find the reason.

# What is a Software Error (Bug) ?


## EXAMPLE

 [JAPAN TRUST] Non-Taxable Amount shows incorrectly on the Invoice List

 Edit  Add comment  Assign  More ▾

Details


Type:

 Incident

Status:

**CLOSED** [\(View Workflow\)](#)

Priority:

 Medium

Resolution:

Done

Affects Version/s:

None

Fix Version/s:

None

Component/s:

None

Labels:

None

Deploy Request:

Not Deployed

Customer:

Forwarding

Organizations:

Customer Ticket No:

FWSD-117

Internal Watchers:

Logistics Helpdesk, Missing record with ID: 2019136, Hanh Nguyen Thi, Huynh Minh Thuong, Missing record with ID: ducnguyen

Description

(1) Customer Company: JAPAN TRUST CO. LTD.  
(<http://104.215.7.94:8001/opusfwd/>)

(2) User Name: Syo Ryu

(3) E-Mail: sryu@jpnttrust.co.jp

(4) Reported at email [ JTC ] // REQUEST// can you add total amount on STATEMENT report

(6) Module Name: Accounting> Operation> Invoice List



(7) Descriptions:

On the Invoice List screen, Non-Taxable Amount of Invoice #I-36103 is 1000 although it shows 34000 on report and A/R Invoice Entry

Please help us check it.

### Activity

All Comments Work Log History Activity

▼  Duc Nguyen (Inactive) added a comment - 2021-06-23 13:35 -  INTERNAL

Dear [Logistics Helpdesk](#)

The Non-Taxable Amount show incorrect cause **the freight code data is wrong.**

I fixed it by updating the data.



```
--BACKUP DATA
SELECT * INTO TB_FRT_CD_20210623 FROM TB_FRT_CD WHERE FRT_CLSS_CD IS NULL
--UPDATE FRT_CLSS_CD
UPDATE TB_FRT_CD SET FRT_CLSS_CD = '' WHERE FRT_CLSS_CD IS NULL
```

Invoice List



# What is a Software Error (Bug) ?

## EXAMPLE

 [Gtrans] OEM B/L Can't save 

Edit Add comment Assign More

Details

Type: Incident

Priority: Blocker

Affects Version/s: Ver. 470.09

Component/s: None

Labels: None

L1 Category: Problem

L2 Category: Unknown

L3 Category: ;

Deploy Request: Not Deployed

Evaluation: NA

Customer: Forwarding

Organizations:

Customer Ticket No: FWSD-484

Internal Watchers: Tran Van Tien, Yew Lim, Hanh Nguyen Thi, 김상준 (Sang-Joon Kim), 최윤석(Yoon Choi)

Status: CLOSED (View Workflow)

Resolution: Done

Fix Version/s: None

Description

Hello Mr. Tien,

The customer reported that the "Add" button on Freight Tab is missing from all OEM B/L Entry Screen. I found that we can't save OEM B/L for the customer with an error message (image below). Please check and advise asap. Thanks.

Activity

All Comments Work Log History Activity

Tran Van Tien added a comment - 2022-01-13 13:25 - INTERNAL

Dear Mr. Yew,

This is a deployment issue.

We have deployed ticket OPVFOUR-7725 on AWS3 yesterday and it got stuck with source code of ticket OPVFOUR-7707(not yet deployed). So, AWS has occurred errors.

I removed the source code of ticket OPVFOUR-7707 from AWS3.

Thank you!

Reply

## Lesson 06

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6.2 Common Sources of Errors?

### **6.3 Common Types of Software Errors**

6.4 Finding, Reproducing and Analyzing a Software Errors

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6.6 A common Bug Life

# Common Types of Bugs?

- User Interface
- Error Handling
- Boundary – Related
- Calculation
- Initial and Later State
- Control Flow
- Handling or Interpreting Data
- Race Conditions
- Load Conditions
- Hardware/ Environment Compatibility
- Source, Version, ID Control
- Testing
- Documentation

# Common Types of Bugs

EXAMPLE

← → ↺

newfwd-test.cyberlogitec.com.vn/SAL\_QUO\_0004?ctrNo=CS25421&ctrVer=1

⌂ ☆ ⚙

👤 Update

CLV NTA

FWD

🔍 Search

🕒 ❤️ ☆ 💬 🔔

CyberLogitec VietNam

👤 🇺🇸 EN

SALES > VENDOR CONTRACT LIST > VENDOR CONTRACT DETAIL

Save

Time Charter Type

Effective Date

Yearly

08/17/2022 ~ 08/17/2022

Created By

Vendor

Person In Charge

TEST1246 TEST Loc

123 English Name

ADMIN1899 Huy Pham

Created Date

Update Date

TEST1319 (2022-07-21 11:37)

admin (2022-08-18 02:21)

Description

LAMP GLASS MACHINE Test special characters ~[!@#\$%^&\*()-\_+=+[]{}|;':",./<>? + ` 漢字

Service Agreements

ROUTE DETAIL

Add Delete

	NO.	COMMODITY GROUP	ORIGIN	DESTINATION	NOTE
<input type="checkbox"/>	1	2313212312	SANG	DATWW	

Showing 1 of 1

RATE

Add Delete

	NO.	EQUIPMENT TYPE	CHARGE CODE	CURRENCY	QUOTATION	FINAL	VALIDITY FROM	VALIDITY TO
--	-----	----------------	-------------	----------	-----------	-------	---------------	-------------

# Common Types of Bugs

## EXAMPLE

FWD

Search

CyberLogitec VietNam

EN

SALES > VENDOR CONTRACT LIST > VENDOR CONTRACT DETAIL

Save

Basic Information

Contract No. \*

Contract Version \*

Contract Ref. No.

Contract Type \*

Status

Use Y/N

CBR3242

Version 2

LOC

Shipping

Approval

No

Time Charter Type

Effective Date

Short-Term

01/11/2021 ~ 03/11/2021

Created By

Vendor

Person In Charge

TEST1988

TEST Loc

123123

Lc ng

admin1899

Huy Pham

Created Date

Update Date

TEST1319 (2022-07-21 11:37)

admin (2022-08-08 17:11)

Description

CYBERLOGITEC VIET NAM

> Service Agreements

Documents

Upload

Delete

	NO.	FILE NAME	SIZE	UPLOAD TIME	Download
--	-----	-----------	------	-------------	----------

# Common Types of Bugs

## EXAMPLE



### [BINEX] MISMATCH BETWEEN AMOUNT DUE AND TOTAL AMOUNT IN A/R ENTRY

[Edit](#)[Add comment](#)[Assign](#)[More](#)

#### ▼ Details

Type: Service Request

Status: **CLOSED** ([View Workflow](#))

Priority: Medium

Resolution: Done

Affects Version/s: None

Fix Version/s: None

Component/s: None

Labels: None

Deploy Request: Not Deployed

Evaluation: NA

Customer: Forwarding

Organizations:

Customer Ticket No: FWSD-666

Internal Watchers: Logistics Helpdesk, Yew Lim, 김상준 (Sang-Joon Kim), 최윤석(Yoon Choi)

#### ▼ Description

(1) Customer Company: BINEX (<http://18.224.90.220:8001/fms/UserLogin.usr#>)

(2) User Name & Email: Brian Choi brianchoi@binexline.com

(3) Module Name: Accounting> AR/AP> AR/AP List

(4) Descriptions: Inv : BLACIN135152 has been overpaid by \$6 but the balance shows as 0.

#### ▼ Attachments



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# What to do in a bug finding process

- 1/ Reproduce bug
- 2/ Analyze bug, find rootcause
- 3/ Report bug / Log bug / Register bug

# Reproducing a Bug

- Some bugs are always reproducible, but some are just sometimes or even rarely.
- When we find a bug, we are looking at a failure, which is a set of symptoms of an underlying error.
- We hypothesize the cause, then we try to re-create the conditions that make the error visible.
- Bugs do not just miraculously happen and then go away. If a bug happens intermittently, it might be under some certain conditions.
- If the bug is non-reproducible, you should always report it, but describe your steps and observations precisely. Programmer will often figure them out.

# Why is a hard to reproduce a bug?

- Memory dependent
- Memory corruption
- Configuration dependent
- Timing Related
- Initialization
- Data flow dependent
- Control flow dependent
- Error condition dependent
- Multi-threading dependent
- Special cases

# Making an Error Reproducible

- Write down everything you remember about what you did the first time.
- Note which things you are sure of and which are good guesses
- Note what else you did before starting on the series of steps that led to this bug.
- Review similar problem reports you've come across before
- Use tools such as capture/replay program, debugger, debug-logger, videopate, or monitoring utilities that can help you identify things that you did before running into the bug.
- Talk to the Dev read the code



# Analyzing a reproducible bug



## Why analyze a Reproducible Bug?

- Analyze bugs in order to:
  - Make your communication effective
  - Avoid wasting the time of the programming and management staff
  - Find more bugs

## Lesson 06

6.1 What is a Software Error?

6.2 Common Sources of Errors?

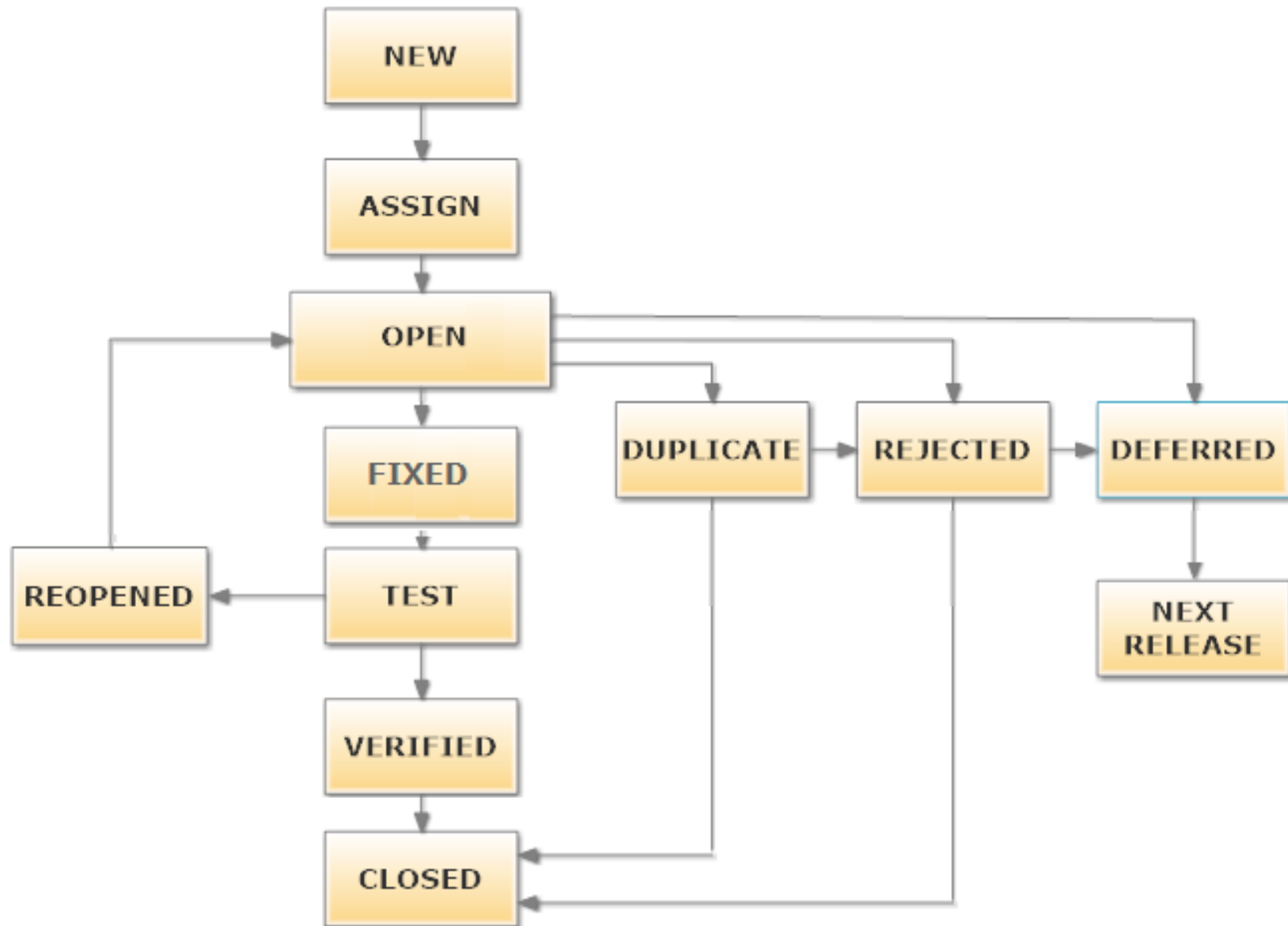
6.3 Common Types of Software Errors

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**6.6 A common Bug Life**

# Bug Life Cycle





## Lesson 06

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6.6 A common Bug Life

**Bug Reports are your primary work product**

# Bug Report Content

- **Summary**
- **Description**
- **Steps to reproduce**
- **Actual / Observed behaviour**
- **Expected behaviour**
- Reproducible
- Severity
- Priority
- Frequency
- Keyword
- Resolution


# Common Types of Bugs

## EXAMPLE

BKG_SHP_0003_339_Test Report - Excel				
File Home Insert Page Layout Formulas Data Review View Tell me what you want to do...				
Clipboard Font Alignment Number Styles				
E12				
ISSUES				
No.	Description	Steps	Actual	Expected
1	The B/L, D/C column are not saved successfully.	<b>Precondition:</b> Open Shipment Detail from Shipment List <b>Steps:</b> 1. Select on Freight tab 2. Click on B/L, D/C cell to change value 3. Perform saving	The B/L, D/C column are not saved successfully.	The B/L, D/C column should be saved successfully.
2	The error message is displayed although users do not change any data	<b>Precondition:</b> Open Shipment Detail from Shipment List <b>Steps:</b> 1. Select on Freight tab 2. Change the data at Rate Currency 3. Rollbacked the old value 4. Click on Save button	The error message is displayed	The error message is not displayed
3	The error message is not displayed when users save Shipment Detail without filling some mandatory fields	<b>Precondition:</b> Open Shipment Detail (AE) from Shipment List <b>Steps:</b> 1. Select on Freight tab 2. Perform adding new record into the grids 3. Click on Save button without filling some mandatory fields	- The error message is not displayed. - The data can not be saved successfully	The warning message should be displayed

# Common Types of Bugs

## EXAMPLE

 [PQC][Purchase Order Entry] The system shows 'Error' when saving data

Edit

Add comment

Assign

More

Review

Closed

Details

Type: Int\_Bug

Priority: High

Affects Version/s: None

Component/s: None

Labels: None

Deploy Request: Not Deployed

Evaluation: NA

Internal Watchers: 오지건 (Ji-Gun OH), Tran Van Dung, 김민정 (Min-Jung KIM), 이혜경 (Hae-Kyoung LEE)

Description

Tester Server:

- <http://172.20.123.193:8001/opusfwd/>

Environment:

- Version 100.0.4896.75 (Official Build) (64-bit)

Pre-Condition:

- Exist PO = PO-NIE0407-02

Steps:

1. Open menu path: Sales > Order > Purchase Order Entry
2. Enter data at Customer PO No. = PO-NIE0407-02
3. Clicking the Search button
4. Move to the Item tab
5. Clicking the Add button
6. Clicking the Lookup icon at the Customer Item column and selected data NIE-10
7. Selected Unit = STANDARD 20 X 48
8. Enter data at Package Order = 14, Inner Qty = 5
9. Clicking the Save button to show the warning 'Do you want to Save?'
10. Clicking the OK button
11. Observer the system

Error: The system shows 'Error' when saving data

Expected: The system does not show 'Error' and save data successfully

People

Assignee: Tran Van Tien

Assign to me

Reporter: Huynh Kim Niem

Original Requester: Huynh Kim Niem

PIC(PQC): Huynh Kim Niem

Dates

Created: 2022-04-08 18:08

Updated: 2022-04-14 11:19

Agile

View on Board

Slack

In order to see discussions, first confirm access to your Slack account(s) in the following workspace(s):  
[MTOS](#), [CyberLogitec EMS](#), [IBIS Plus](#), [Next Logistics](#), [QIT\\_Cyberlogitec](#), [TOS Maintenance](#)

Git Integration

Branches

Create branch

Merge requests

Create merge request

Attachments

Drop files to attach, or browse.

BUG481.mp4

2022-04-08 18:08

3.17 MB

BUG481.png

2022-04-08 18:08

89 kB

FB BUG481.mp4

2022-04-13 16:09

4.18 MB

image-2022-04-12-10-43-15

2022-04-12 12:43

35 kB

image-2022-04-12-10-44-19

2022-04-12 12:44

44 kB

# Bug Description Syntax

## Bug Description Syntax

**Symptom** + **Action** + **operation condition**

### EXAMPLE

Users cannot login BluePrint successfully with valid account.

Users cannot Check in successfully with the "Punch In/Out" button.



# Thank You

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VIETNAM

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