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Document Details

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Version History

Version	Date	Prepared By	Reason for Change
1.0	17/02/2022	Jyothish Lal J	Initial version
1.1	21/02/2022	Dileep Kadavarath	Revised
1.2	21/02/2022	Jyothish Lal J	Change status code
1.3	22/02/2022	Jyothish Lal J	DeliveryAddress Removed . Added header and lines to all APIs.
1.4	03/03/2022	Jyothish Lal J	SalesReturnPackingSlip API added.
1.5	14/03/2022	Jyothish Lal J	Date format change to ("MM:DD: YYYY")

Introduction

This document covers the usage and Warehouse integration details of the API provided.

Functions

Warehouse integration API includes multiple endpoints for the following functions

1. Authentication.
2. ASN product receipt.
3. Return PO product receipt.
4. Sales order packing slip.
5. Sales Return packing slip.
6. Transfer order in receipt.
7. Transfer order out shipment.
8. Inter warehouse Transfer order shipment.
9. Inter warehouse Transfer order receipt.

Authentication API

The solution features a token-based authentication model. All the subsequent requests mentioned in this document requires the valid token send as authentication header.

Request

END POINT	<protocol>://<domain-name>:<port>/api/ax/gettoken
METHOD	POST

Request Body

```
{
        "username" : <username>,
        "password" : <password>
}
```

Parameter	Data type	Mandatory	Description
Username	string	Yes	Username will be created in the backend and will be shared
Password	string	Yes	Password will be created in the backend and will be shared

Request Headers

1. Content-Type : Application/json

Response

Success:
```
{
    "access_token": <access-token>,
    "token_type": "bearer",
    "expires_in": 599,
    "issued": "2019-07-13T08:15:55Z",
    "expires": "2019-07-13T08:25:55Z",
    "error": null,
    "error_description": null
}
```

Error/Fail:

```
{
    "access_token": null,
    "token_type": null,
    "expires_in": 0,
    "issued": "0001-01-01T00:00:00",
    "expires": "0001-01-01T00:00:00",
    "error": "invalid_grant",
    "error_description": "The user name or password is incorrect."
}
```

Parameter	Data type	Description
access_token	String	Token returned on successful authentication. Further requests require this token in authorization header.
token_type	String	On successful authentication always returns "bearer" and null otherwise.
expires_in	Int	This value denotes the token will expire in next n seconds.
Issued	DateTime	Token issued time.
Expires	DateTime	Token expiring time.
Error	String	Cause of failure in case of error or failure to authenticate.
error_description	String	Description of failure in case of error or failure to authenticate.

ASN product receipt

The ASN file has been sent to internal operations, and those files are sent to a third party, they must return the ASN product receipt to Dynamics AX and information should be pushed to AX staging. Below API can be used for posting this data to staging database.

Request

END POINT	<protocol>://<domain-name>:<port>/api/asn/productreceipt
METHOD	POST

Request Body

```
{
  "asnHeader": {

    "asnNumber": "ASN000000580"
  },
  "asnLines": [
    {

      "sku": "026821038 ",
      "skuDescription": "KRUGER COUGAR DIFFUSER 200ml",
      "lineReference": 1,
      "expectedQty": 2,
      "uom": "PIECE",
      "receivedQty": 2,
      "damagedQty": 0,
      "packQty": 2,
      "actualReceiptDate": "05:05:2021",
      "wareHouseId": "110"
    },
    {
      "sku": " 026821007 ",
      "skuDescription": " OOH LA OUD CANDLE,48,PIECE ",
      "lineReference": 2,
      "expectedQty": 48,
      "uom": " PIECE ",
      "receivedQty": 48,
      "damagedQty": 0,
      "packQty": 48,
      "actualReceiptDate": "05:15:2021",
      "wareHouseId": "110"
    }
  ]
}
```

Parameter	Data type	Length	Mandatory	Description
asnHeader				
asnNumber	string	10	Yes	AsnNumber
asnLines				
Sku	string	10	Yes	Itemid
skuDescription	string	50	Yes	Item description
lineReference	int		Yes	Item line number
expectedQty	decimal	(18,2)	Yes	Ordered quantity
Uom	string	6	Yes	Unit of measurement
ReceivedQty	decimal	(18,2)	Yes	Quantity received
DamagedQty	decimal	(18,2)	Yes	Quantity damaged
packQty	decimal	(18,2)	Yes	Packing quantity of the item
actualReceiptDate	string	10	Yes	Format ("MM:DD: YYYY")

Request Headers

1. Content-Type : Application/json
2. Authorization : bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	string	Status of the request. 200-Success. All other status code is failure
Message	string	Description will contain information on the failure or success

Return PO product receipt

Once the return purchase order is confirmed, the Dynamics AX will send the details to a third-party warehouse, which will process, and receipt information post it on the AX staging table using the endpoint below.

Request

END POINT	\<protocol\>://\<domain-name\>:\<port\>/api/return/poreceipt
METHOD	POST

Request Body

```
{
  "poHeader": {
    "poNumber": "PO-005280 "
  },
  "poLines": [
    {
      "sku": "026821038",
      "skuDescription": "KRUGER COUGAR DIFFUSER 200ml",
      "lineReference": 1,
      "ReturnQty": 1,
      "ShippedQty": 2,
      "wareHouseID": "110"
    },
    {
      "sku": "026821007",
      "skuDescription": "OOH LA OUD CANDLE,48,PIECE",
      "lineReference": 2,
      "ReturnQty": 5,
      "ShippedQty": 48,
      "wareHouseID": "110"
    }
  ]
}
```

Parameter	Data type	Length	Mandatory	Description
poHeader				
poNumber	String	20	Yes	PurchaseOrderNumber

Request Headers

1. Content-Type : Application/json
2. Authorization : bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	string	Status of the request. 200-Success. All other status code is failure
Message	string	Description will contain information on the failure or success

Sales order packing slip

Currently, Sales order process is not used by TrueValue. Going forward, Sales orders created and confirmed from both warehouses in the default warehouse section will trigger the integration. once the process is completed in the third-party warehouse which will process, and receipt information post it on the AX staging table using the endpoint below.

Request

END POINT	<protocol>://<domain-name>:<port>/api/salesorder/packingslip
METHOD	POST

Request Body

```
{
  "soHeader": {
    "salesOrderNumber": "S00001"
  },
  "soLines": [
    {
      "sku": "026821038",
      "skuDescription": "KRUGER COUGAR DIFFUSER 200ml",
      "lineReference": 1,
      "orderedQty": 2,
      "shippedQty": 2,
      "deliverydate": "05:15:2021",
      "storeId": "112",
      "wareHouseID": "110"
    },
    {
      "sku": "026821007",
      "skuDescription": "OOH LA OUD CANDLE,48,PIECE",
      "lineReference": 2,
      "orderedQty": 48,
      "shippedQty": 48,
      "deliverydate": "04:06:2021",
      "storeId": "112",
      "wareHouseID": "110"
    }
  ]
}
```

Request Headers

1. Content-Type : Application/json
2. Authorization : bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	String	Status of the request. 200-Success. All other status code is failure
Message	String	Description will contain information on the failure or success

Sales Return Packing Slip

Once the return order is created and communicated to Innerworks, they must return the sales return packing slip to Dynamics AX and information should be pushed to AX staging. Below API can be used for posting this data to the staging database.

Request

END POINT	<protocol>://<domain-name>:<port>/api/salesorder/returnpackingslip
METHOD	POST

Request Body

```
{
  " returnOrderHeader":
  {
    "returnOrderReference":"RT001"
  },
  "returnOrderLines":[
    {
      "salesOrderReference":"S00001",
      "sku":"026821038 ",
      "skuDescription":"KRUGER COUGAR DIFFUSER 200ml",
      "lineReference":1,
      "expectedQty":2,
      "uom":"PIECE",
      "returnQty":2,
      "actualReceiptDate":"12:05:2021",
      "wareHouseId":"110"
    },
    {
      "salesOrderReference":"S00001",
      "sku":"026821038 ",
      "skuDescription":"KRUGER COUGAR DIFFUSER 200ml",
      "lineReference":2,
      "expectedQty":2,
      "uom":"PIECE",
      "returnQty":2,
      "actualReceiptDate":"12:05:2021",
      "wareHouseId":"110"
    }
  ]
}
```

Request Headers

1. Content-Type : Application/json
2. Authorization : bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	String	Status of the request. 200-Success. All other status code is failure
Message	String	Description will contain information on the failure or success

Transfer order in receipt

Once the Innerworks receives the stock, the received quantity information will be updated back to Dynamics and Dynamics AX will use this information to automatically receive the Transfer order. This above process will be applicable for manual/automatic/integrated Transfer orders created in Dynamics AX for all valid warehouses. Receipt information will be posted in the AX staging table using the endpoint below.

Request

END POINT	<protocol>://<domain-name>:<port>/api/transferorder/inreceipt
METHOD	POST

Request Body

```
{
  "toHeader": {
    " transferOrderNumber ": "TO-049349"
  },
  "toLines": [
    {
      "sku": " 026821038 ",
      "skuDescription": " KRUGER COUGAR DIFFUSER 200ml ",
      "lineReference": 1,
      "expectedQty": 2,
      "uom": " PIECE ",
      "receivedQty": 2,
      "damagedQty": 0,
      "packQty": 2,
      "actualReceiptDate": "12:05:2021",
      "storeId": "102",
      "wareHouseId": "110"
    },
    {
      "sku": " 026821007 ",
      "skuDescription": " OOH LA OUD CANDLE,48,PIECE ",
      "lineReference": 2,
      "expectedQty": 48,
      "uom": " PIECE ",
      "receivedQty": 48,
      "damagedQty": 0,
      "packQty": 48,
      "actualReceiptDate": "12:05:2021",
      "storeId": "102",
      "wareHouseId": "110"
    }
  ]
}
```

Parameter	Data type	Length	Mandatory	Description
toHeader				
transferOrderNumber	string	20	Yes	Transfer Order In Number

Request Headers

1. Content-Type: Application/json
2. Authorization: bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	String	Status of the request. 200-Success. All other status code is failure
Message	String	Description will contain information on the failure or success

Transfer order out shipment

Once the Transfer order is confirmed, integration is triggered, and both the warehouses involved in the transaction will be informed through integration. Once the Innerworks warehouse ships/picks the order, the shipped/picked quantity will be updated back to Dynamics and Dynamics AX will use this information to automatically ship the Transfer order. Shipment information will be posted in the AX staging table using the endpoint below.

Request

END POINT	<protocol>://<domain-name>:<port>/api/transferorder/outshipment
METHOD	POST

Request Body

```
{
  "toHeader": {
    " transferOrderNumber ": "TO-051809"
  },
  "toLines ": [
    {

      "sku": "026821038",
      "skuDescription": "KRUGER COUGAR DIFFUSER 200ml",
      "lineReference": 1,
      "orderedQty ": 2,
      "shippedQty": 2,
      "deliverydate": "04:06:2021",
      "storeId": "102",
      "wareHouseID": "110"
    },
    {

      "sku": "026821007",
      "skuDescription": "OOH LA OUD CANDLE,48,PIECE",
      "lineReference": 2,
      "orderedQty ": 48,
      "shippedQty": 48,
      "deliverydate": "04:06:2021",
      "storeId": "102",
      "wareHouseID": "110"
    }
  ]
}
```

Parameter	Data type	Length	Mandatory	Description
toHeader				
transferOrderNumber	String	20	Yes	Transfer Order Out Number

Request Headers

1. Content-Type: Application/json
2. Authorization: bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	String	Status of the request. 200-Success. All other status code is failure
Message	String	Description will contain information on the failure or success

Inter warehouse Transfer order shipment

Once the user enters the item details, and clicks the confirm button, the transfer details will be integrated to Innerworks along with the From and To warehouse information. Once Innerworks ships the stock from the From warehouse defined, it will be updated back to Dynamics. Dynamics AX will use this information to automatically ship the Transfer order. Shipment information will be posted in the AX staging table using the endpoint below.

Request

END POINT	<protocol>://<domain-name>:<port>/api/Interwarehouse/ordershipment
METHOD	POST

Request Body

```
{
  "toHeader": {
    " transferOrderNumber ": "TO-051809"
  },
  "toLines": [
    {
      "sku": "026821038",
      "skuDescription": "KRUGER COUGAR DIFFUSER 200ml",
      "lineReference": 1,
      "orderedQty ": 2,
      "shippedQty": 2,
      "deliverydate": "04:06:2021",
      "FromWhsID": "111",
      "ToWhsID": "110"
    },
    {
      "sku": "026821007",
      "skuDescription": "OOH LA OUD CANDLE,48,PIECE",
      "lineReference": 2,
      "orderedQty ": 48,
      "shippedQty": 48,
      "deliverydate": "04:06:2021",
      "FromWhsID": "111",
      "ToWhsID": "110"
    }
  ]
}
```

Request Headers

1. Content-Type : Application/json
2. Authorization : bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	string	Status of the request. 200-Success. All other status code is failure
Message	string	Description will contain information on the failure or success

Inter warehouse Transfer order Receipt

When the To warehouse receives the stock, this will be again updated back to Dynamics. Dynamics will use this information to receive the Transfer order automatically. This above process will be applicable for manual/automatic/integrated Transfer orders created in Dynamics AX for all valid warehouses. Receipt information will be posted in the AX staging table using the endpoint below.

Request

END POINT	<protocol>://<domain-name>:<port>/api/interwarehouse/orderreceipt
METHOD	POST

Request Body

```
  {
"toHeader": {
  "transferOrderNumber": "TO-051809"
},
"toLines": [
  {
    "sku": "026821038 ",
    "skuDescription": "KRUGER COUGAR DIFFUSER 200ml",
    "lineReference": 1,
    "expectedQty": 2,
    "uom": "PIECE",
    "receivedQty": 2,
    "damagedQty": 0,
    "packQty": 2,
    "actualReceiptDate": "11:05:2021",
    "FromWhsID": "111",
    "ToWhsID": "110"
  },
  {
    "sku": " 026821007 ",
    "skuDescription": " OOH LA OUD CANDLE,48,PIECE ",
    "lineReference": 2,
    "expectedQty": 48,
    "uom": " PIECE ",
    "receivedQty": 48,
    "damagedQty": 0,
    "packQty": 48,
    "actualReceiptDate": " 19:05:2021",
    "FromWhsID": "111",
    "ToWhsID": "110"
  }
 ]
}
```

Request Headers

1. Content-Type: Application/json
2. Authorization: bearer <access-token>

Response

```
{
    "statusCode": <status-code>,
    "message": <message>
}
```

Parameter	Data type	Description
statusCode	string	Status of the request. 200-Success. All other status code is failure
message	string	Description will contain information on the failure or success