



Universal Personalization Services: UPSUpdateShellPrintInfo web method

A Basic Guide

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UPS Console

Universal Personalization Services (UPS) supports on-site operations with a versatile solution called UPS Console. This solution provides the manufacturing site to integrate with HP custom integration services. This document illustrates one proposed method to save time and money on operator training at manufacturing sites. The reduced ramp-up eliminates the need for significant operator re-training that would normally ensue from a full-fledged integration of UPS with the factory shop-floor automation system.

Introduction

UPS offers extensive capabilities to support unit personalization in conjunction with support for Custom Integration Services (CIS) by HP in close cooperation with manufacturing sites across the world. A standard approach to supporting CIS services envisages that all factory sites process data in a service-oriented manner that relies on industry standards and best practices for an efficient manufacturing supply chain.

Goal

This document illustrates a web method that will allow site to store the Shell tag information that will be printed later.

Objective

The use of this web method will permit the factory site to send Shell Chassis/Box computer name tag info and store it in the UPS DB so it can be printed using other methods such as UPSClient, UPSGetTags or UPSGetATRP.

This web method must be executed separately for Chassis and Box as each tag must require different information to be printed based on the Part Number AV specification.

Key Operation

The key operation is:

- Update UPS Site database to link the UUT Serial Number scanned with the Shell tag information that will be printed as well as to link the SystemID of the platform so the SOP Image can be shown to site in order to know the exact location where the label must be placed on the Chassis or Box.

Important Assumption and Limitation

This document is not the comprehensive reference guide for any UPS activity. You should contact the UPS Development team for more detailed information on UPS. This document is limited to the illustration of the key operation described in the following sections.

Key Definitions

The proper consideration of the following terms will lead to a better understanding of the proposed web method:

- **Serial Number**
A string that defines the bar code scanned value from the UUT being processed.
- **HPPO**
Order reference number that was previously communicated to UPS Site server using a SendBOM method.
- **Part Number AV**
UPS Part Number or SKU used by the HPPO which will contain the Label format and information that will be printed (BarTender) as well as other info like asset number to be used, Print Routing, Order specific information and Unit specific information.

Web Method

Method Syntax

```
[WebMethod]
public ATMStruct UPSUpdateShellPrintInfo(string SN, string PartNumber, string
HPPO, string MAC, string SystemID, string Placement)
```

Parameters

The following table lists the parameters for the proposed **UPSUpdateShellPrintInfo** method:

Parameter	Type	Description
SN	string	UUT Serial Number. If empty or null, method will return code -1. i.e. "SHG1234567, CZC4362L1Z, etc..."
PartNumber	String	Shell Chassis/Box UPS Part Number AV Setup. If empty or null, method will return code -1. i.e. "YW489AV (Chassis), YW490AV (Box)"
HPPO	string	Order reference number that was previously communicated to UPS Site server using a SendBOM method. If empty or null, method will return code -1. i.e. "123456-001, 475869362, etc..."
MAC	string	MAC parameter is mandatory, the MAC address info is needed to store the Tag information as appropriate in the UPS DB, as well as needed in case MAC key word is used under the TagData parameter configuration. i.e. "40A8F0A4C293, A0481CA9E64E, etc..." or NULL
SystemID	string	System ID parameter is mandatory. The System ID of the UUT is needed in order to match the SOP to be shown at printing station. The SOP can either be the SYSID of the system board or it can be the Product Name. i.e. "18E5, 1589, etc..." or "HP EliteBook 840 G1, HP ProDesk 600 G1 TWR, etc..." or NULL Note: By default, the SYSID is used, but, in some scenarios, 2 different platforms/form factors can have the same system board and therefore the same SYSID. For those scenarios, it is needed to use the Product Name of the unit as the SOP so that the specific placement for those different platform/form factors can be shown. This does not occur in the notebooks, but in the desktops.
Placement	string	Mandatory parameter, Site must specify if the tag is Chassis or Shipping (Box) . i.e. "Chassis" or "Shipping"

Return Value

Type: ATMStruct

Structure

The following figure illustrates the general response from the proposed **UPSUpdateShellPrintInfo** method:

```
public struct ATMStruct
{
    public string version;
    public int retcode;
    public string message;
    public string assetTagNum;
}
```

Field Values

The following table explains the data values in the response object:

Parameter	Type	Description
version	string	The web service version number
retcode	int	The return code from the web service in response to the current parameters submitted by the client application. Typical return codes are: 0 = success -1 = failure 1 = success – But, means the Serial Number was already processed.
message	string	Error or success message
assetTagNum	String	The return string containing the tag data that UPS assigned to Serial Number at the Site UPS DB (Computer Name contained in XML)

Risk

Wrong calls to the proposed **UPSUpdateShellPrintInfo** method not passing the correct info specified in the Parameter table mentioned in previous section of this document may result on not getting the expected results, for that reason, Site must configure the web method accordingly in case they want to use - or not – the UPS printing solutions (UPS Client or **UPSGetATRP**) or their own print solution.

Assumptions

This method has the following underlying assumptions:

- The Site uses one of the `SendBOM` and `UPSGetUSI` web methods available before invoking the proposed **`UPSUpdateShellPrintInfo`** web method.
- The Site allows sufficient time for UPS to service the range requests.
- The Site uses the same HPP0 value for the invocation of the chosen `SendBOM` method first and the proposed **`UPSUpdateShellPrintInfo`** method subsequently.
- Site will be responsible to manage exceptions that can be thrown by web service call.
- Examples provided in this document are exclusively for .NET and C# if site decides to use other programming language or Framework is OK as soon as the values returned are not changed.

The following code snippet illustrates the client side operations to:

- Submit the request to the UPS Site server
- Process the response data

The code snippet does not exhaustively illustrate all the operations needed in the client application for robust handling of shopfloor practices.

CODE Example C# - UPSUpdateShellPrintInfo

```

public struct ATMStruct
{
    public string version;
    public int retcode;
    public string message;
    public string assetTagNum;
}

namespace UPS_ATRPCConsumer
{
    class Program
    {
        static void Main(string[] args)
        {
            UPS_ATRPCConsumer localhost.ATMStruct retval = new
            UPS_ATRPCConsumer localhost.ATMStruct();
            UPS_ATRPCConsumer localhost.ATRP svc = new UPS_ATRPCConsumer localhost.ATRP();

            /*** site must use its own URL and not necessarily the one illustrated below ***/
            svc.Url = "http://localhost/UPSATRP/UPS_ATRP.asmx";

            /*** test data; the values for your site may be different ***/
            string serialNo = "SHG1234567";
            string partNumber = "AY115AV";
            string hppo = "TestHPPPO";
            string macAddr = "A0481CA9E64E";
            string sysID = "1546";
            string placement = "CHASSIS";

            int retcode = 1;
            string version = String.Empty;
            string message = String.Empty;

            retval = svc.UPSUpdateShellPrintInfo(serialNo, partNumber, hppo, macAddr, sysID,
            placement);
            // Data stored and ready to be printed in UPS Site DB
            if (retval.retcode == 0)
            {
                version = retval.version;
                message = retval.message;
                assetTagNumber = retval.assetTagNum;
                /*** site should continue their normal workflow after success ***/
            }
            else
            {
                // error condition - read retval.message
            }
        }
    }
}

```

Enhancement

The feature to export the assigned range of asset numbers for external transmission is under consideration. Further scoping discussions with the manufacturing sites will provide the basis for a more efficient solution.

Summary

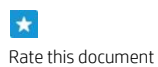
This document provides a brief description on the use of a proposed feature in the UPS solution for manufacturing sites – Retrieve Asset Number list. This feature will permit manufacturing sites to ramp up quickly on behalf of HP to deliver asset tag services to global customers. The UPS team cannot guarantee the delivery of any proposed feature without further consultation with the business teams responsible for delivery of the services. The manufacturing sites will have to integrate their current shop floor system to this new feature. There are many additional features in the UPS solution that can assist the manufacturer to improve its TAT and Quality. Analysis of these features and their corresponding integration into the shop floor computer application can occur after the initial adoption of UPS at the manufacturing site.

Resources, contacts, or additional links

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