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## **Scanner:1.0 Device Template Version 1.01**

**For UPnP™ Version 1.0**

**Status: Standardized DCP**

**Date: September 11, 2002**

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# 1. Overview and Scope

This device template is compliant with the UPnP Architecture, Version 1.0.

Scanner:0.92 represents a Scanner device with an optional feeder and minimal front panel. The associated services may be used to configure and initiate a scan operation, control the use of a feeder, and identify the intended recipients of front-panel interactions. The following services are defined:

- *Scan – Used to acquire image files that represent the document(s)*
- *Feeder – Used to configure and independently control an optional document feeder*
- *ExternalActivity – Used to configure and interact with a simple front panel on the device*

This device template does not address:

- *Fax or Copy functions*

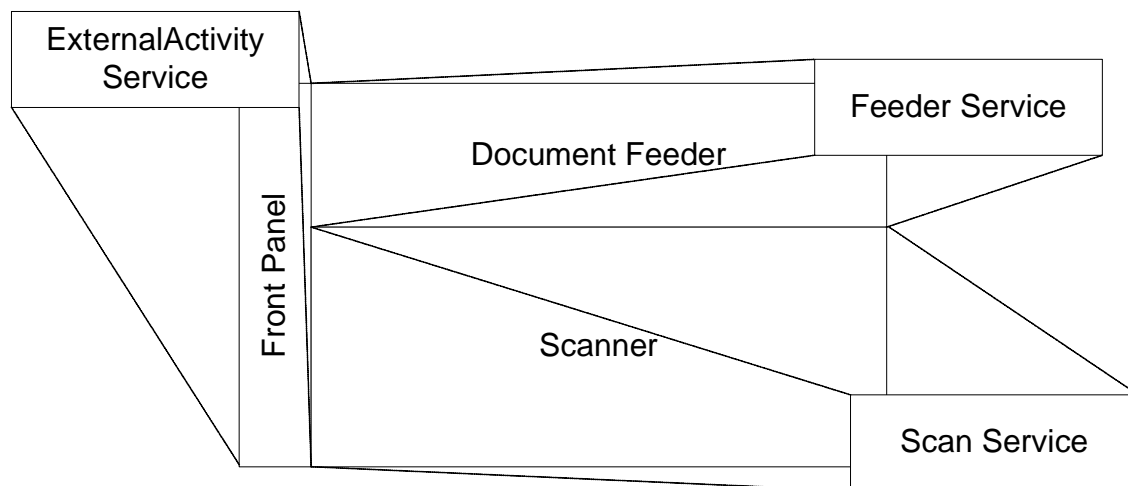


Figure 1 - Scanner Device Functional Diagram

## 1.1. Change Log for Scanner:1.0 Device Template

Updated Service Versions

- 0.21 – Updated Service Versions – Larry Copp 1-Dec-00
- 0.24 – Updated Service Versions and formatted to 1.0 Device Template – Larry Copp 19Jan2001
- 0.40 – Updated Service versions and added XML comments regarding optional services – Larry Copp, 7Feb2001
- 0.41 – Updated Service versions – Larry Copp, 1Mar2001
- 0.52 – Updated Service versions and added ExternalActivity as an optional service - Larry Copp, 12Jun2001
- 0.53 – Updated Service versions - Larry Copp, 26Jun2001
- 0.70 – Updated Service versions - Larry Copp, 6Aug2001
- 0.71 – Updated Service versions - Larry Copp, 21Aug2001. In addition, the following changes were made:
  - Added information regarding the ExternalActivity and its use in the Scanner device.

- Modified the XML to use schemas-upnp-org instead of hp-com

0.72 – Updated Service versions – Larry Copp 29Aug2001

0.90 – Updated Service versions, removed the diagram in Figure 1.

0.91 – Changes to bring the document into compliance with the *Checklist for UPnP Standard Device Template* including:

- Added a functional device description and diagram.
- Changed the name of the Scanner service to Scan service – *the name of the device and service cannot be the same*
- Changed the version of the services to 0.91

0.92 – Changes from the teleconference on 9May2002

- Changed the DeviceType value in Table 1 from Scan to Scanner.
- Changed the versions of the Scan and Feeder services to 0.92
- Changed the Scanner service type to Scan in the XML description

1.0 – *Document approved by Steering Committee*

- Changed version to 1.0
- Changed status to Standardized DCP
- Changed date to September 11, 2002
- Changed legal disclaimer on the first page to Appendix G of the SC Org and Process Doc.
- Changed all copyrights to “© 1999-2001 Microsoft Corporation. All rights Reserved.”
- In section 2. “Device Definitions”, changed the version to 1
- In section 2.1 “Device Model”, change the versions to 1 for DeviceType and ServiceType. Dropped the version number from the serviceIDs. Changed the number 2 footnote from “Prefixed by urn:[upnp-org:Scanner](#).” to “Prefixed by urn:[upnp-org:serviceID](#).”
- In section 3.0 “XML Device Template for Scanner:1.0”, changed the deviceType and serviceType versions to 1. Dropped the version number from the serviceIDs.

## 2. Device Definitions

The following device type identifies a device that is compliant with this template:

urn:schemas-upnp-org:device:Scanner:1

### 2.1. Device Model

Products that expose devices of the type **urn:schemas-upnp-org:device:Scanner:1.0** must implement minimum version numbers of all required embedded devices and services specified in the table below.

**Table 1: Device Requirements**

DeviceType	Root	Req. or Opt. <sup>1</sup>	ServiceType	Req. or Opt. <sup>1</sup>	Service ID <sup>2</sup>
<u>Scanner:1</u>	<u>Root</u>	<u>R</u>	<u>Scan:1</u>	<u>R</u>	<u>Scan</u>
			<u>Feeder:1</u>	<u>O</u>	<u>Feeder</u>
			<u>ExternalActivity:1</u>	<u>O</u>	<u>ExternalActivity</u>

<sup>1</sup> R = Required, O = Optional, X = Non-standard.

<sup>2</sup> Prefixed by urn:upnp-org:serviceID: .

## 2.2. Theory of Operation

The Scanner device combines:

- a Scan service for Scanner control and configuration
- a Feeder service for Document Feeder operation
- an ExternalActivity service for user initiated activity notification (push buttons, etc.)

### 2.2.1. Scan Service

The *Scan Service* is used to operate the scanner. The scan can take place automatically (all available pages are scanned without additional interactions) or manually (the client must start each page of the scan).

### 2.2.2. Feeder Service

The *Feeder Service* is used to manage a document feeder (if needed). Pages may be loaded or ejected using the *Feeder Service*. The feeder service is optional. If the device does not have a feeder that can be controlled by a control point, then the feeder service should be omitted.

### 2.2.3. ExternalActivity Service

The *ExternalActivity Service* is used to manage subscriptions and registrations for user initiated events. Control points may register their use of a button and receive a RegistrationID in return. When a user pushes the registered button, the UCP is notified of the activity and may start a scan operation using the RegistrationID as a key to identify the intended user.

### 3. XML Device Template for Scanner:1.0

```

<?xml version="1.0"?>
<root xmlns="urn:schemas-upnp-org:device-1-0">
  <specVersion>
    <major>1</major>
    <minor>0</minor>
  </specVersion>
  <URLBase>base URL for all relative URLs</URLBase>
  <device>
    <deviceType>urn:schemas-upnp-org:device:Scanner:1</deviceType>
    <friendlyName>short user-friendly title</friendlyName>
    <manufacturer>manufacturer name</manufacturer>
    <manufacturerURL>URL to manufacturer site</manufacturerURL>
    <modelDescription>long user-friendly title</modelDescription>
    <modelName>model name</modelName>
    <modelNumber>model number</modelNumber>
    <modelURL>URL to model site</modelURL>
    <serialNumber>manufacturer's serial number</serialNumber>
    <UDN>uuid:UUID</UDN>
    <UPC>Universal Product Code</UPC>
    <iconList>
      <icon>
        <mimetype>image/format</mimetype>
        <width>horizontal pixels</width>
        <height>vertical pixels</height>
        <depth>color depth</depth>
        <url>URL to icon</url>
      </icon>
      XML to declare other icons, if any, go here
    </iconList>
    <serviceList>
      <service>
        <serviceType>
          urn:schemas-upnp-org:service:Scan:1
        </serviceType>
        <serviceId>urn:upnp-org:serviceId:Scan</serviceId>
        <SCPDURL>URL to service description</SCPDURL>
        <controlURL>URL for control</controlURL>
        <eventSubURL>URL for eventing</eventSubURL>
      </service>
      <!-- Optional service
        The Feeder service should be omitted if it is not supported -->
      <service>
        <serviceType>
          urn:schemas-upnp-org:service:Feeder:1
        </serviceType>
        <serviceId>urn:upnp-org:serviceId:Feeder</serviceId>
        <SCPDURL>URL to service description</SCPDURL>
        <controlURL>URL for control</controlURL>
        <eventSubURL>URL for eventing</eventSubURL>
      </service>
      <!-- Optional service
        The ExternalActivity service should be omitted if it is not
        supported -->
      <service>

```

```
<serviceType>
  urn:schemas-upnp-org:service:ExternalActivity:1
</serviceType>
<serviceId>urn:upnp-org:serviceId:ExternalActivity</serviceId>
<SCPDURL>URL to service description</SCPDURL>
<controlURL>URL for control</controlURL>
<eventSubURL>URL for eventing</eventSubURL>
</service>
  Declarations for other services added by UPnP vendor (if any) go here
</serviceList>
<deviceList>
  Description of embedded devices added by UPnP vendor (if any) go here
</deviceList>
<presentationURL>URL for presentation</presentationURL>
</device>
</root>
```



## **4. Test**

*Required content of this section to be specified in revision 1.0 of this template.*