RamSoft
Client Integration Specification
Version 6.7

CANADA

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RamSoft Client Integration Specification

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Overview

The purpose of this document is to provide the client integration specifications for PowerServer 6.7 software from RamSoft Inc.

URL Integration

Format of the PowerReader URL

The PowerReader URL is of the form:

> https://[serverurl]/powerreader/login.aspx?app=powerreader&param1=value1&param2= value2...

When the above URL is executed, the PowerReader webpage will download the PowerReader client if necessary, and launch PowerReader or execute on an existing instance for the same server if already running.

Format of the RapidResults URL

The RapidResults URL is of the form:

> http://[serverurl]/ powerreader/login.aspx?app=rapidresults&param1=value1&param2=value2&...

Direct access to the RapidResults URL is of the form:

> http://[serverurl]/ powerreader/mobile/index.aspx?param1=value1&param2=value2&...

URL Parameters

Note: All parameters below will work in PowerReader and RapidResults unless otherwise specified.

Parameter	PowerReader Support	RapidResults Support	Description

Username	Yes	Yes	The parameter specifies the user context to use for PowerReader and RapidResults. This should only be used with an Active Directory integration.
Patientid	Yes	Yes	This parameter specifies the patient ID for the patient being opened or added.
Accessionnumber	Yes	Yes	This parameter specifies the accession number of the study being opened.
Studyuid	Yes	Yes	This parameter specifies the study instance UID of the study being opened.
Issuer	Yes	Yes	This parameter specifies the issuer of the patient ID of the study being opened.
Action	Yes	No	This parameter specifies a specific action to perform. The valid values are close (to close PowerReader) and closestudy (to close the current displayed study). **Note:** This parameter should not be specified to open a study.
PatientIDIssuer	No	Yes	This is a special parameter that is a combination of patient ID + Issuer. This was originally designed for PracticeSuite.

Launch Study Options

To open a study, the following options are available:

i. Specifying only the **patientid** will open the most recent study of the Patient that matches with the specified Patient ID.

ii. Specifying only the **patientid** and **issuer** will open the most recent study of the Patient that matches with the specified Patient ID and Issuer of the patient ID combination.

iii. Specifying **patientid** and **accessionnumber** will open the study with the corresponding Patient ID and Accession Number combination.

iv. Specifying **studyuid** will open the study with the corresponding Study Instance UID.

v. Specifying **patientid**, **accessionnumber**, and **issuer** will open the study with the corresponding Patient ID, Accession Number, and Issuer of Patient ID combination. This can help differentiate between two or more studies that have the same Patient ID and Accession Number.

> **Note:** If a study cannot be located, the Worklist will appear instead in PowerReader, or the search screen will display in RapidResults.
>
> Duplicate accession numbers or patient IDs can result in users launching/opening studies that might be different from the intended ones. However, user group privileges should be checked/configured in such a way for the users using URL integration so to prevent those users from accessing patient/studies that are not meant to be accessed by them.
>
> If duplicate patient IDs/accessions are observed on site or might be a factor in the future, then multiple parameters (patient ID, issuer, STUDYINSTANCEUID, etc.) should be used to ensure uniqueness when setting up URL integration.

Example URLs

Copy and paste the URLs below into a browser to see how they work (may not work directly by clicking them in this document).

PowerReader URL Examples

The URL below will open the study with Accession Number ACCECHO2 and Patient ID ID990023 under the user context of "RAMSOFT":

https://demo.ramsoftpacs.com/powerreader/login.aspx?username=RAMSOFT&patientid=ID990023&accessionnumber=ACCECHO2&app=powerreader

The URL below will open the study with Accession Number ACCECHO2, Patient ID ID990023, and Issuer 'RAMSOFT':

https://demo.ramsoftpacs.com/powerreader/login.aspx?patientid=ID990023&accessionnumber=ACCECHO2&issuer=RAMSOFT&app=powerreader

The URL below will open the study with a Study Instance UID of 1.76.380.18.14.1161018173229151.156:

https://demo.ramsoftpacs.com/powerreader/login.aspx?studyuid=1.76.380.18.14.1161018173229151.156&app=powerreader

This URL below will close the currently opened study:

https://demo.ramsoftpacs.com/powerreader/login.aspx?action=closestudy

RapidResults URL Examples

Study URL

The URL below will open the study with Accession Number ACCECHO2 and Patient ID ID990023:

http://demo.ramsoftpacs.com/powerreader/login.aspx?patientid=ID990023&accessionnumber=ACCECHO2&app=rapidresults

The URL below will open the study with Accession Number ACCECHO2, Patient ID ID990023, and Issuer 'RAMSOFT':

https://demo.ramsoftpacs.com/powerreader/login.aspx?patientid=ID990023&accessionnumber=ACCECHO2&issuer=RAMSOFT&app=rapidresults

The URL below will open the study with a Study Instance UID of 1.76.380.18.14.1161018173229151.156:

https://demo.ramsoftpacs.com/powerreader/login.aspx?studyuid=1.76.380.18.14.1161018173229151.156&app=rapidresults

Study URL Access

The URL (with the required Study UID and Patient ID) allows users to navigate directly to a specific study within RapidResults.

For security reasons, access without authentication is not supported. When the URL is accessed, the user will first be redirected to the login page. After successful authentication, the system will automatically open the requested study using the provided parameters.

http://demo.ramsoftpacs.com/powerreader/mobile/index.aspx?studyuid=1.76.380.18.14.1161018173229151.156&patientid=ID990001
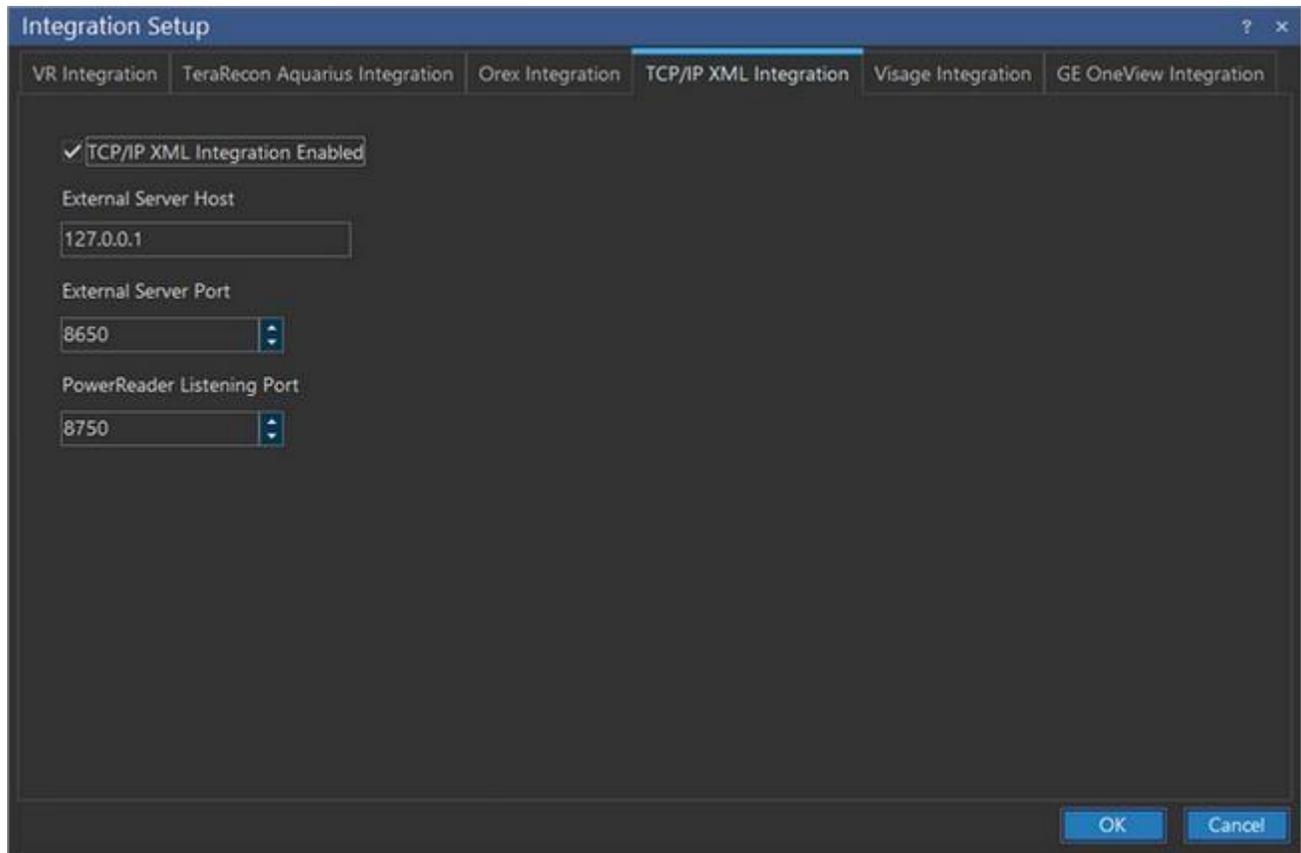
Notes

1. PowerReader Integration URLs can be launched in different browsers (e.g. IE, Chrome). Please refer to the platform specifications for details, http://www.ramsoft.com/resources.php

2. It is advised that the same web browser window be reused to execute **ALL** URL commands.

3. HTTPS POST should be used while calling the PowerServer URL to encrypt all parameters. Placing the parameters in the URL (GET) will transmit all parameters unencrypted.

TCP/IP XML Integration

TCP/IP Configuration

TCP/IP XML Integration is configured in PowerReader via Settings > Client Integration > TCP/IP XML Integration.

- **External Server Host** and **External Server Port** are configured to allow PowerReader to send XML messages to another system.
- **PowerReader Listening Port** is the TCP/IP Port that PowerReader will use to receive XML messages from another system.

The client workstation firewall must be configured to open the configured TCP/IP ports.

XML Message Format that PowerReader can Send and Receive

```
<?xml version="1.0" encoding="utf-8"?>
<XAppMessage>
    <MessageInfo>
     <Type Type="String">Request</Type>
     <Command Type="String">OpenPatient</Command>
     <Sender>
                <Name Type="String">%APPNAME%</Name>  </Sender>
     <UID Type="String">%UID%</UID>
    </MessageInfo>

    <Patient>
     <PatientID Type="String">%PATIENTID%</PatientID>
     <Study>
        <AccessionNumber
Type="String">%ACCESSIONNUMBER%</AccessionNumber>
     </Study>
    </Patient>

   <UserID>%USERNAME%</UserID>
</XAppMessage>
```

These strings will be replaced with data from PowerReader:

%APPNAME%	This field is populated with the PowerReader caption when sending. When receiving, this field is ignored.
%UID%	This field is populated with a DICOM UID when sending to uniquely identify this message. When receiving, this field is ignored.
%PATIENTID%	This field is populated with the Patient's ID.
%ACCESSIONNUMBER%	This field is populated with the study's Accession Number.
%USERNAME%	This field is populated with the currently logged in Username when sending. When receiving, this field is ignored.

Revision History

Version	Revision Notes	Updated by	Reviewed by	Effective Date
Rev A	Updated the document in the new template. Added point #2 in section 2.5	UKN	LLG	2013/01/28
Rev B	Added sections 2.2 'Format of Physician Portal URL' and section 2.5.2 'Physician Portal URL Examples'.	UKN	LLG	2013/2/25
Rev C	Added sections 2.3 'Format of Mobile Physician Portal URL' and section 2.5.3 'Mobile Physician Portal URL Examples'. Also added Issuer to the Parameter list in section 2.4.	HGA	SRN	2013/3/7
Rev D	Added section 3 on TCP/IP XML Integration	TCN	SRN	2013/3/26
Rev E	• Removed Physician Portal. • Updated rebrand name RapidResults • Updated Heading of document from "PowerReader Client Integrations" to "RamSoft Client Integration Specification 6.0". • Removed 5.1 R3 notes. • Added SessionID and ViewdiagSROnly into Parameters Table • Updated 2.5.2 last example to launch RapidResults with SessionID, PatientID and Accessionnumber	TCN	SRN	2013/11/20

Rev F	• Modified all "powerreader4" in sample URLs to just "powerreader" • Removed reference to RapidResults' login page under the "password" section • Added new parameter "PatientIDIssuer"	HGA	TCN	205/6/17
Rev G	• Updated URLs under "RapidResults URL Examples" to launch studies in RapidResults Split RapidResults Example URL • section into 3 different sections	HGA	TCN	2015/8/21
Rev H	• Fixed an error in the first RapidResults URL example (Acession #, PatientID)	HGA	RSA	2015/10/09
Rev I	• Updated the screenshot for Integration Setup screen	LLH	DVR	2015/11/18
Rev J	• Study UID and Patient ID are required information to access study without • logging in Include that other browsers can be used to launch URLs with link to RamSoft Platform • Specifications Explanation when combining Patient ID and Issuer in URL	RGO	LLG	2016/2/22

Rev K	• Updated Example URLs section to point to working demo server	JZG	LLG	2018/7/31
Rev L	• Revised Username / Password in Example URLs • Revised wording of URL integration section	JZG	LLG	2018/8/16
Rev M	• Update URL integration note to advise of possible issues with duplicate patient IDs/accession numbers used on site	SM	SM	2019/6/18
Rev N	• Removed session ID, ViewDiagSROnly flag, and Report URLs that use it.	MI	SM	2022/02/15
Rev O	• Removed all references to using visible passwords. Fixed invalid • URLs	MI	SM	2025/01/21