

Appointment Import

Version 2.50

This document details how to import appointment information into the Hughes riskApps™ software. You should read and understand this document prior to attempting to import appointment data.

Introduction

There are four available methods to importing appointment data into Hughes riskApps™:

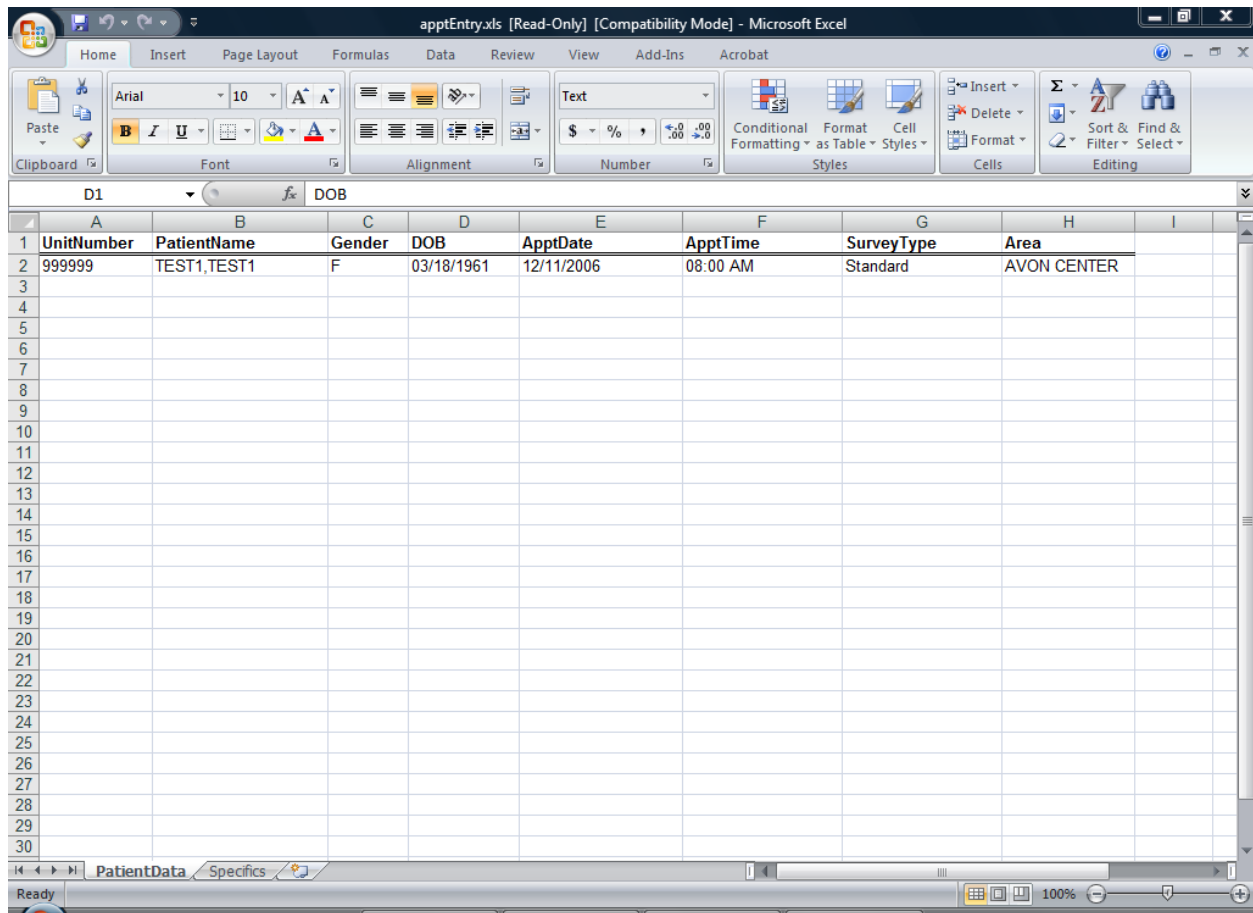
1. Use the **Add Appt** button to add an appointment through the Clinician applications management screen.
2. Using the Excel Spreadsheet named **apptEntry.xls** located in c:\program files\riskappsv2\documentation\. (Note: this document is copied to this folder on installation of the Hughes riskApps™ Clinician application).
3. Using Microsoft SQL Server Integration Services, or more commonly known as SSIS.
4. Write a custom import application of your own that connects to and extracts data from your existing appointment scheduling system and writes it to the Hughes riskApps™ appointment table. This is generally done as an executable application and coded using something like VB, VB.NET or C#.

In the following pages you will find more detailed information about each method.

Method #2: Microsoft Excel Spreadsheet

You may use this method to import data using Microsoft Excel. This is the least flexible way to import data and is meant only for importing the absolute minimal amount of data. You cannot import extended patient demographics, like addresses, with this option. NOTE: Hughes riskApps™ does not advocate using this method in a production or clinic environment, rather it is useful for testing and demonstration purposes.

Using Microsoft Excel 2003 or below, you can open the file c:\program files\riskappsv2\documentation\apptEntry.xls. When you open this file it will look like this:



	A	B	C	D	E	F	G	H	I
1	UnitNumber	PatientName	Gender	DOB	ApptDate	ApptTime	SurveyType	Area	
2	999999	TEST1,TEST1	F	03/18/1961	12/11/2006	08:00 AM	Standard	AVON CENTER	
3									
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NOTE: You may use Excel 2007 but you must maintain compatibility with Excel 97 – 2003. The Hughes riskApps™ import function will not work if you save this workbook as an Excel 2007 file.

Appointments need to be keyed into each row. All values must be **text** values. The above columns are the minimum columns that must be imported.

Columns:

UnitNumber – This is the Medical Record # for the patient. This might also be called Patient ID or Unit number. Essentially this is an identifier that uniquely identifies this patient throughout your hospital system. **Note: this is not a unique appointment or visit number!** Unit number should not exceed 50 characters.

PatientName – As you would expect, this is the patient's name. The patient's name should always be formatted as LAST, FIRST. For Example: DOE, JANE is Jane Doe. This ensures that if your clinicians want to sort a list of appointments by patient name, that sort will be in alpha order by last and then first. Patient name should not exceed 100 characters.

Gender – This is a one character code that identifies the patient's gender. Allowable values are: F, M and U. F = Female, M = Male, and U = Unknown. Gender should always be populated as the tablet application will use this to ask female related questions and diseases vs. those that are male related. Gender should not exceed 1 character.

ApptDate – This is the date of the patient appointment. This is a character representation of a date value. Appointment date should always be formatted as MM/DD/YYYY. For example: 01/01/2009 or 12/31/2009. Any single digit month or **must** have a leading zero – e.g. 2/15/2009 is not a valid appointment date but **02/15/2009** is. Appointment date should not exceed 10 characters and must include the “/” character between MM and DD.

ApptTime – This is the time of the patient appointment. This is a character representation of a time value. Appointment time should always be formatted as HH:MM AM or PM. For example: 09:00 AM or 02:00 PM. Any single digit hour or minute **must** have a leading zero – e.g. 2:15 PM is not a valid appointment time but **02:15 PM** is. Appointment Time should not exceed 8 characters and must include the “:” character between HH and MM and a space between the MM and AM or PM designators.

SurveyType – This is the type of tablet survey the patient will answer. The allowable values are **Standard** and **Risk Clinic**. If a patient is being seen in mammography or for a routine screening, typically clinics will want the patient to answer the **Standard** survey. If a patient has been identified as high risk, clinics will typically want the patient to answer the **Risk Clinic** tablet. The **Risk Clinic** tablet can also be used for patient identified at high risk after that patient has answered the **Standard** tablet. Survey Type should not exceed 50 characters.

Area – This value is the area in a clinic where the patient will be seen. This can be the same as your clinic name. For example: Surgical Suite, Breast Care Center. Area should not exceed 50 characters.

Method #3: Microsoft SQL Server Integration Services (SSIS)

This method and method #4 are the most flexible methods for importing appointment data into Hughes riskApps™. These methods allow you to schedule jobs, pull data from other systems and in a variety of formats as well as transform that data to formats that Hughes riskApps™ will accept. Finally, Method #3 and Method #4 allow you to interact with Hughes riskApps™ at a database level, thereby allowing you to import much more data than you can with Method #1 or Method #2.

Using **SQL Server Business Intelligence Development Studio** installed with SQL Server 2005, a SQL programmer can write sophisticated data integration jobs that extract data from one system and import it into Hughes riskApps™. Typical jobs might look something like this:

1. Every morning at 4 AM, pull data from an internal database, import it to a temporary table in Hughes riskApps™, then add to the production table in Hughes riskApps™ those appointments not yet imported and update those already imported

or

2. Every morning at 4 AM, go out to a location on the network and find a text file of pipe-delimited data that was created and saved by a job at 3:00 AM running on the scheduling system. Read this file, import it to a temporary table in Hughes riskApps™, then add to the production table in Hughes riskApps™ those appointments not yet imported and update those already imported.

Your job might be much more sophisticated or simpler than either of these two examples, but they reflect some of the things you can do with SSIS.

The tables staging_tblAppointments and tblAppointments are used for importing appointments programmatically. Typically, you import appointments first into staging_tblAppointments. You may transform the data once you have written the data to this table and you may also do any other operations you need to do on this data prior to writing it to the production table, tblAppointments. For example: you can write all of your appointments for a rolling 7 day period to stage_appointments. Perform any formatting to dates and times so that they are acceptable to Hughes riskApps™. If you also import your scheduling systems unique appointment identifier into the Hughes riskApps™ **visitnum** field, you can then link stage_tblAppointments to tblAppointments on **visitnum**. Once the link is made you can now determine which appointments are not yet in Hughes riskApps™, and add them, or you can determine appointments that you have already imported and you might want to update them in the event data was changed in your scheduling system. You may do this import as often as you like but once a day is the recommended minimum.

Below is a table/schema of both the staging_tblAppointments and tblAppointments tables. With each field, you will find the maximum allowable length as well as the data type expected.

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Finally, the Notes column will give you an indication of allowable values and/or formatting requirements.

Field	Data Type (length)	
apptid	int	Internal Hughes riskApps™ - auto generated – do not attempt to populate
patientID	int	Reserved for future internal use – do not populate
unitnum	nvarchar(50) Required	Patient Unique Identifier, also known as a Unit Number, Patient ID, or Medical Record Number. This is not an appointment or visit number
familyNumber	int	Reserved for internal use – do not populate
institution	nvarchar(50)	Reserved for future use – do not populate
patientname	nvarchar(100) Required	Patient Name. Format: LAST, FIRST MI
socsecnum	nvarchar(20)	Social Security Number. Format: XXX-XX-XXXX
address1	nvarchar(100)	Patient address fields – these should be populated if clinicians or clinic staff will prepare letters.
address2	nvarchar(100)	
city	nvarchar(50)	
state	nvarchar(2)	
zip	nvarchar(13)	
country	nvarchar(50)	
homephone	nvarchar(20)	Format: (###) ###-#### or ###-###-####
workphone	nvarchar(50)	Format: (###) ###-#### or ###-###-####
cellphone	nvarchar(50)	Format: (###) ###-#### or ###-###-####
gender	nvarchar(10) Required	Allowable Values: F,M, or U F = Female, M = Male, U = Unknown
dob	nvarchar(10) Required	Date of Birth. Format: MM/DD/YYYY Single digit months and days must have a leading zero
maritalstatus	nvarchar(50)	Marital status. Use your institutions allowable values.
race	nvarchar(50)	Race. Use your institutions allowable values.
religion	nvarchar(50)	Religion. Use your institutions allowable values.
contactname	nvarchar(50)	Emergency contact name for patient.

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contacthomephone	nvarchar(20)	Format: (###) ###-#### or ###-###-####
contactworkphone	nvarchar(20)	Format: (###) ###-#### or ###-###-####
occupation	nvarchar(50)	Patient occupation
schedulenote	nvarchar(50)	A short note about the appointment
apptdate	nvarchar(10) Required	Appointment Date. Format: MM/DD/YYYY Single digit months and days must have a leading zero
apptime	nvarchar(10)	Appointment Time. Format: HH:MM AM or PM. Single digit hours and minutes must have a leading zero
apptphysname	nvarchar(75)	Clinician name patient will see
insurance	nvarchar(75)	Insurance carrier name
refphysname	nvarchar(75)	Referring physician name. Format: First Middle Last
pcpname	nvarchar(75)	PCP Name. Format: First Middle Last
visitnum	nvarchar(20)	Unique appointment number from the scheduling system.
pcpaddress1	nvarchar(100)	PCP contact address and phone
pcpaddress2	nvarchar(100)	
pcpcity	nvarchar(50)	
pcpstate	nvarchar(2)	
pcpzip	nvarchar(13)	
pcpphone	nvarchar(20)	
language	nvarchar(75)	Language. Use your institutions allowable values.
nationality	nvarchar(75)	Nationality. Use your institutions allowable values.
apptstatus	nvarchar(50)	Appointment status. Use your institutions allowable values.
apptlength	nvarchar(10)	Appointment length in minutes
apptdeptabb	nvarchar(50)	Appointment area within the clinic
appttype	nvarchar(100)	Appointment type. Use your institutions allowable values.
surveyType	nvarchar(50) Required	Allowable values: Standard Risk Clinic

imported	Datetime	Date time the appointment was imported
riskdataexported	datetime	Internal use – do not use
riskdatastarted	datetime	Internal use – do not use
riskdatacompleted	datetime	Internal use – do not use
clinic	nvarchar(50)	Clinic name or code where patient will be seen.

Important things to know

- Always import or scheduling systems appointment unique identifier. By doing so you can link from our staging table to our production table and only add those appointments not yet imported. This helps to control duplicates. For the same token, you can use this method to update any appointment already in the system in the event a change was made in the scheduling since the last import.
- Always import a unique Patient ID into the UnitNum field. ***This is critical.*** Without a unique patient ID (also known as Unit number or medical record number) the tablet system as well as the clinician application will be unable to associate survey data with patient on ***subsequent*** visits. The ability to associate survey data from one visit to another is a huge time saver for patients!

Method #4: Write a Custom Executable or Script Using Your Favorite Programming Language.

This method is essentially identical to method #3 but uses a programming or scripting language outside of Microsoft SQL Server to connect to your primary scheduling data (data base or data feed) and to transform and import that data into Hughes riskApps™.

See Method #3 for more information.