

# WorkMate EP Interface

## Imported Data Elements

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## Scope of import

### Demographics

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report
Patient Demographic Information	<SEX></SEX>	Gender	Birth gender
Patient Demographic Information	<DATE_OF_BIRTH></DATE_OF_BIRTH>	Date of Birth	Birthdate
Patient Demographic Information	<WEIGHT></WEIGHT>	Weight	Weight
Patient Demographic Information	<HEIGHT></HEIGHT>	Height	Height

Gender and date of birth are disabled by default.

### Pre-Procedure Information

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report
Pre-Procedure Information	<STUDY_DATE></STUDY_DATE>	Study date	Study date
Pre-Procedure Information	<STUDY_START_TIME></STUDY_START_TIME>	Study time	Study time
Pre-Procedure Information	<INDICATIONS></INDICATIONS>	Indications	HPI and indications
Post-Procedure Information	<FLOURO_TIME></FLOURO_TIME>	Fluoroscopy time	Fluoroscopy time

Study date and time and Fluoro time are disabled by default.

There is an ejection fraction in WorkMate exported as <CATH\_EJECTION\_FRACTION>, that import in the following path and target in the ASCEND report: Prior procedures| Cath lab| Measurements: EF

### Post-Procedure Information

WorkMate Claris Data Class	WorkMate Claris XML Section	WorkMate Claris XML Data Element	ASCEND report
Post-Procedure Information	<FLOURO_TIME></FLOURO_TIME>	Fluoroscopy time	Fluoroscopy time

### Medications

The interface imports historical and administered medications, including bolus and infusion for the latter. It imports the medication name, dose and dose unit or rate and rate unit, and bolus vs infusion status.

The summation of medications occurs for “Sedations” and “Study Medications” only when the routes are identical. Historical medication, or those administered as bolus or infusion will not sum up.

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report
Medications	<CURRENT_MEDICATIONS_1></CURRENT_MEDICATIONS_1>	Home/Historical Medication	Historical medications
Medications	<SEDATIONS_1></SEDATIONS_1>	In-Study Sedation	Medications given
Medications	<SEDATIONS_BOLUS_1></SEDATIONS_BOLUS_1>	In-Study Sedation Bolus	Medications given (bolus)
Medications	<SEDATION_INFUSION_1></SEDATIONS_INFUSION_1>	In-Study Sedation Infusion	Medications given (infusion)
Medications	<STUDY_MEDICATIONS_1></STUDY_MEDICATIONS_1>	In-Study Medication	Medications given
Medications	<STUDY_MEDICATION_BOLUS_1></STUDY_MEDICATION_BOLUS_1>	In-Study Medication Bolus	Medications given (bolus)

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report
Medications	<STUDY_MEDICATION_INFUSION_1></STUDY_MEDICATION_INFUSION_1>	In-Study Medication Infusion	Medications given (infusion)

The complete list of imported WorkMate medications is in the table below. Unrecognized medications import as text in the “Unlisted medications” section of the ASCEND report.

### Current medications

Accupril	Crestor	Lisinopril	Procardia
Actos	Digoxin	Lopressor	Propafenone
Advair	Diltiazem	Losartan	Propranolol
Alendronate	Diovan	Lovastatin	Protonix
Altace	Ecotrin	Lovenox	Prozac
Ambien	Effient	Metoclopramide	Quinidine
Amiodarone	Enalapril	Metformin	Quinapril
Amlodipine	Flomax	Metoprolol	Rythmol
Ancef	Flunisolide	Mexiletine	Simvastatin
ASA	Fosamax	Micardis	Soma
Atacand	Gemfibrozil	Mirtazapine	Sotalol
Atenolol	Glimepiride	Monopril	Synthroid
Atropine	Glipizide	Morphine	Toprol XL
Avapro	Heparin	Nadolol	Trazodone
Benazepril	Hydralazine	Neurontin	Tricor
Captopril	Hydrochlorothiazide	Nexium	Trilipix
Carbamazepine	Hyzaar	Norvasc	Valium
Cartia XT	Insulin	Pantoprazole	Vasotec
Cardizem	Isoptin	Paxil	Verapamil
Cardura	Isordil	Plavix	Viagra

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Celebrex	Isosorbide	Pradaxa	Warfarin
Celexa	Isradipine	Pravachol	Wellbutrin
Citalopram	Klonopin	Pravastatin	Xarelto
Clonazepam	Lasix	Prednisone	Zestril
Cordarone	Levoxyl	Prevacid	Zetia
Coreg	Lidocaine	Prilosec	Zocor
Coumadin	Lipitor	Procainamide	Zoloft

**Sedations/study medications**

Adenosine	Diltiazem	Lopressor	Propofol
Amiodarone	Dilaudid	Lovenox	Propranolol
Ampicillin	Diprivan	Magnesium	Protamine
Ancef	Dobutamine	Magnesium Sulfate	Protamine Sulfate
Angiomax	Dopamine	Metoprolol	ReoPro
Aspirin	Epinephrine	Milrinone	Romazicon
Ativan	Esmolol	Morphine	Sodium Bicarbonate
Atropine	Fentanyl	Narcan	Solu Cortef
Avelox	Furosemide	Neosynephrine	Solu-Medrol
Benadryl	Gentamicin	Nicardipine	Ticagrelor
Calcium Chloride	Heparin	Nipride	TPA
Cardene	Hydralazine	Nitroglycerin	Valium
Cardizem	Ibutilide	Nubain	Vancomycin
Cipro	Integrilin	Phenergan	Vasopressin
Clindamycin	Isuprel	Phenylephrine	Verapamil
Coumadin	Labetalol	Plavix	Versed
Decadron	Lasix	Potassium	Zofran
Demerol	Levophed	Prasugrel	
Digoxin	Lidocaine	Procainamide	

## Allergies

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report
Medications	<ALLERGIES></ALLERGIES>	Allergy	Allergies

The interface supports the import of allergic reactions. The allergies import as plan text, except for the statement that no allergies are present. The latter is done via the following strings: “NKDA”, “\*NKDA”, or “None”.

## Indications

The following indications are supported from the “<INDICATIONS></INDICATIONS>” XML string. Multiple indications can be supported in a comma delimited string:

<INDICATIONS>AVNRT, SVT, Bradycardia</INDICATIONS>

- 3D AV Block
- A Fibrillation
- A Flutter
- Atrial Tach
- AVNRT
- Bradycardia
- Brugada syndrome
- Cardiac Arrest
- Cardiomyopathy
- NSVT
- Palpitation
- Pre Syncope
- SINUS Node Dysfunction
- SVT
- Syncope
- VF
- VT
- Wide Complex Tachycardia
- WPW

## Inventory

### Catheters

Catheters recorded during the procedure are imported to the “Access/catheter table” in the ASCEND report. Each catheter imports to its own row.

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report
Electrodes	<CATHETER_1></CATHETER_1>	Catheter Manufacturer	Catheter - Manufacturer
Electrodes	<SIZE_1></SIZE_1>	Catheter Size	Catheter – Size (Fr)

Electrodes	<CURVE_1></CURVE_1>	Catheter Curve	Model
Electrodes	<INTRODUCER_SIZE_1></INTRODUCER_SIZE_1>	Introducer Size	Sheath – Size (Fr)
Electrodes	<INSERTED_FROM_1></INSERTED_FROM_1>	Insertion Site	Entry site
Electrodes	<INSERTED_TO_1></INSERTED_TO_1>	Catheter Tip Location	Locations

The complete list of imported WorkMate access sites and catheter tip location sites is included below.

### Access sites

The following sites are supported from the “Inserted From” XML string in the catheter section.

- Left Brachial Vein
- Right Brachial Vein
- Left Femoral Artery
- Right Femoral Artery
- Left Femoral Vein
- Right Femoral Vein
- Left Internal Jugular Vein
- Right Internal Jugular Vein
- Left Subclavian Vein
- Right Subclavian Vein

### Catheter tip location sites

The following sites are supported from the “Inserted To” XML string in the catheter section.

- CS
- HIS
- HRA
- LA
- LV
- RVA
- RVOT



## Implanted hardware

WorkMate XML Section	WorkMate XML Data Element	ASCEND report
<PACEMAKER_MANUFACTURER></PACEMAKER_MANUFACTURER> <ICD_MANUFACTURER></ICD_MANUFACTURER> <LEAD_MANUFACTURER_1></LEAD_MANUFACTURER_1>	Manufacturer	Manufacturer
<PACEMAKER_MODEL></PACEMAKER_MODEL> <ICD_MODEL></ICD_MODEL> <LEAD_MODEL_1></LEAD_MODEL_1>	Model	Model
<PACEMAKER_AGE></PACEMAKER_AGE> <ICD_AGE></ICD_AGE> <LEAD_AGE_1></LEAD_AGE_1>	Age*	Status
<PACEMAKER_SERIAL_NUMBER></PACEMAKER_SERIAL_NUMBER> <ICD_SERIAL_NUMBER></ICD_SERIAL_NUMBER> <LEAD_SERIAL_NUMBER_1></LEAD_SERIAL_NUMBER_1>	Serial number	Serial number

\* WorkMate exports the string “New”, e.g. <ICD\_AGE>New</ICD\_AGE> that imports in ASCEND as a “New successful implant”.

## Complications

WorkMate XML Section	WorkMate XML Data Element	ASCEND report
<COMPLICATIONS></COMPLICATIONS>	Complication	Adverse outcomes

The device interface imports unrecognized complications as plain text. The complete list of imported WorkMate complications is included in the ACEND configuration guide “Configuration - EP – WorkMate”.

The following complications are supported from the “<COMPLICATIONS></COMPLICATIONS>” XML string. Multiple complications can be supported in a comma delimited string, e.g.:

<COMPLICATIONS>PNEUMOTHORAX, TIA, V-FIB</COMPLICATIONS>

- None
- AV BLOCK
- AV PERFORATION
- CS SPASM
- EMBOLISM
- FISTULA
- HEMATOMA
- MI
- OCCLUSION
- PNEUMOTHORAX
- PSEUDOANEURYSM
- TAMPONADE
- TIA
- TRANSIENT ISCHEMIC ATTACK
- V-FIB
- VALVE PERFORATION

Complications not in this list are considered unrecognized and import as text.

## Electrophysiology measurements

The electrophysiology measurements populate the log report and will import to the Intervals and conduction tables in the Ascend report.

The measurements are preceded by a measurement type that sets the context for the measurements, e.g. “BL” which is the baseline. The measurement type will import to the “Phase name” field in the appropriate tables. The device imports unrecognized measurements to the generic tables in the Ascend report. Measurements with a value of zero (0) will not import.

The following is the scope of import for electrophysiology measurements:

- Recognized context and recognized measurement = measurement will import to its target in physician reporting
- Recognized context and unrecognized measurement = measurement will import to the generic measurements table

Unrecognized context (recognized/unrecognized measurement) = measurement will **NOT** import

### Measurement types

- |          |         |
|----------|---------|
| • BL     | • VT-2  |
| • A Pace | • VT-3  |
| • V Pace | • VT-4  |
| • SVT    | • Other |
| • VT-1   | • SVT   |

### Pre-defined measurements

- |         |          |
|---------|----------|
| • A-A   | • AVNERP |
| • A-H   | • AERP   |
| • A-V   | • VERP   |
| • H-V   | • S1     |
| • P-A   | • S2     |
| • P-R   | • S3     |
| • QRS   | • S4     |
| • QT    | • WCL    |
| • QTc   |          |
| • R-R   |          |
| • V-A   |          |
| • V-V   |          |
| • SNRT  |          |
| • CSNRT |          |
| • ERP   |          |
| • FRP   |          |
| • PFRP  |          |

## Unrecognized pre-defined measurements

- P-P
- H-H
- BP MAX
- BP MIN
- BP AVG

## Conduction system information

The “Conduction system information” section of WorkMate contains the “Max CSNRT” measurement that import in the “Intervals and conduction” table in ASCEND.

## Arrhythmias

Arrhythmia information imports to the Arrhythmia detail and Arrhythmia table sections of the ASCEND report. The complete list of imported WorkMate arrhythmias is included in the ACEND configuration guide “Configuration - EP – WorkMate”. Unrecognized arrhythmia types <ARRHYTHMIA\_1></ARRHYTHMIA\_1> import as text in the “Rhythm/Arrhythmia type” in the Arrhythmia table.

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report	Arrhythmia Detail, Table, or Both
Arrhythmia	<ARRHYTHMIA_1></ARRHYTHMIA_1>	Arrhythmia	Rhythm/Arrhythmia type	Both
Morphology	<MORPHOLOGY_1></MORPHOLOGY_1>	Morphology	QRS morphology	Table
Sustained *	<SUSTAINED_1></SUSTAINED_1>	Sustained	Sustained	Both
Duration	<DURATION_1></DURATION_1>	Duration	Duration	Table
Cycle length	<CYCLE_LENGTH_1></CYCLE_LENGTH_1>	Cycle length	Cycle length	Detail
Induction method	<INDUCTION_METHOD_1></INDUCTION_METHOD_1>	Induction method	Protocol and pacing location	Detail
Termination	<TERMINATION_1></TERMINATION_1>	Termination	Termination	Table
Arrhythmia comment	<ARRHYTHMIA_COMMENT_1></ARRHYTHMIA_COMMENT_1>	Arrhythmia comments	Comments	Table

\* “Sustained” has values of Yes/No.

## Arrhythmia (rhythm)

- VT
- ANTIDROMIC
- VF
- AVRT
- POLYMORPHIC VT
- AT
- SVT
- JUNCTION TACH
- AVNRT
- A FIB

- ORTHODROMIC
- A FLUTTER

Unrecognized arrhythmia types <ARRHYTHMIA\_1></ARRHYTHMIA\_1> import as text in the “Rhythm/Arrhythmia type” in the Arrhythmia table.

**Morphology**

- NORMAL
- LBBB
- RBBB
- WPW
- LAHB
- LPHB

**Cardioversion**

Cardioversion information imports to the Cardioversion procedure and Cardioversion table sections of the ASCEND report.

WorkMate Data Class	WorkMate XML Section	WorkMate XML Data Element	ASCEND report	Arrhythmia Procedure, Table, or Both
Joules	<JOULES_1></JOULES_1>	Joules	Dialed energy	Procedure
Pre Rhythm	<PRE_RHYTM_1></PRE_RHYTM_1>	Pre Rhythm	Initial rhythm	Procedure
Post Rhythm	<POST_RHYTM_1>SINUS</POST_RHYTM_1>	Post Rhythm	Rhythm after conversion/ Converting to	Both
Success	<SUCCESS_1></SUCCESS_1>	Success	Final outcome	Table
Joules Measured	<JOULES_MEASURED_1></JOULES_MEASURED_1>	Joules Measured	Energy	Table

**Pre Rhythms**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• VT</li> <li>• VF</li> <li>• POLYMORPHIC VT</li> <li>• TORSADE DE POINTES</li> <li>• SVT</li> <li>• AVNRT</li> </ul> | <ul style="list-style-type: none"> <li>• ORTHODROMIC</li> <li>• ANTIDROMIC</li> <li>• AT</li> <li>• JUNCTION TACH</li> <li>• A FIB</li> <li>• A FLUTTER</li> </ul> |
|--|--|

### Post Rhythms

- SINUS
- SVT
- AVNRT
- ORTHODROMIC
- ANTIDROMIC
- AT
- JUNCTION TACH
- A FIB
- A FLUTTER
- PACED DDD
- PACED VVI
- PACED AAI

### Baseline ECG

The baseline ECG imports to the Baseline ECG in the Ascend report from the following XML string in the import: <BASELINE\_ECG\_RHYTHM></BASELINE\_ECG\_RHYTHM>.

Unrecognized baseline ECG rhythms import as text. The complete list of imported WorkMate baseline ECG data elements is included in the ACEND configuration guide “Configuration - EP – WorkMate”.

### Baseline ECG rhythms

## WorkMate EP to Ascend Imported Data Elements

- A-Fib
- A FIB
- A FLUTTER
- ANTIDROMIC
- AT
- AVNRT
- JUNCTION TACH
- Normal sinus rhythm
- NSVT
- ORTHODROMIC
- PACED AAI
- PACED DDD
- PACED VVI
- POLYMORPHIC VT
- PVCs
- SINUS
- SVT
- TORSADE DE POINTES
- VF
- VT

Unrecognized baseline ECG rhythms  
import as text



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