



# WORKLIST

DICOM WORKLIST SERVER

## OPTIMIZING YOUR WORKFLOW



VERSION 3.0





## ***CONSISTENT DATA THROUGHOUT RIS AND PACS***

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*iQ-WORKLIST is a powerful DICOM worklist server and a must-have in every imaging center.*

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DICOM worklists are indispensable in a radiological environment, as they accelerate the modality workflow and ensure that typing errors are avoided. Through their use, consistent data is maintained throughout all medical imaging systems.

iQ-WORKLIST can interface with virtually any radiology, practice or hospital information system, read scheduling data, and create DICOM worklists for imaging modalities.

In addition, it can read HL7 order requests (ORM/OMG), patient update/merge messages (ADT), and also accepts BDT/GDT or structured text files as a data source.

iQ-WORKLIST can be easily installed and configured due to the included configuration presets. It is reliable and easy to maintain. Configuration presets include the ability to read HL7, GDT, CSV and XML files. For special circumstances, iQ-WORKLIST offers PACS administrators a powerful mapping tool for data conversion between various standards.

Three versions are available to meet all of your connection needs:

### **iQ-WORKLIST**

available for a maximum of either 2 or 5 modalities

### **iQ-WORKLIST PRO**

for a maximum of 10 modalities

### **iQ-WORKLIST PREMIUM**

for an unlimited number of modalities  
Also includes an ADT module for patient reconciliation support.

## FULLY AUTOMATED WORKFLOW

iQ-WORKLIST can read procedure information from connected modalities, such as radiation dose, billing data, study status, series, or image data, and provide it to the feeding information system like HIS, RIS or EMR. This is possible through MPPS (Modality Performed Procedure Steps) which enables iQ-WORKLIST to accept messages for creating, modifying, and returning MPPS information.

## SUPERIOR PERFORMANCE

iQ-WORKLIST 3.0 uses an SQL database which increases its performance and results in more efficient data processing. It can be employed flexibly in both small imaging centers and big hospitals. Because it processes incoming messages and simultaneous worklist queries using multi-threads, iQ-WORKLIST can also be used centrally for large multi-site projects.

## COMPATIBILITY

Many information systems lack an HL7 interface. By using iQ-WORKLIST, virtually any information system can be connected using freely configurable text files.

In addition, iQ-WORKLIST provides Unicode support (UTF-8) and thus speaks all major world languages. Local character sets can be automatically converted to Unicode.

iQ-WORKLIST supports the following C-FIND Query and Retrieve tags. (A complete list can be found in the iQ-WORKLIST 3.0 DICOM Conformance Statement):

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### PATIENT

- Patient's Name, Patient ID, Patients Birth Date, Patient's Sex, Patient's Weight, Patient State
- Pregnancy Status
- Medical Alerts
- Additional Patient History
- Allergies
- Special Needs

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### VISIT

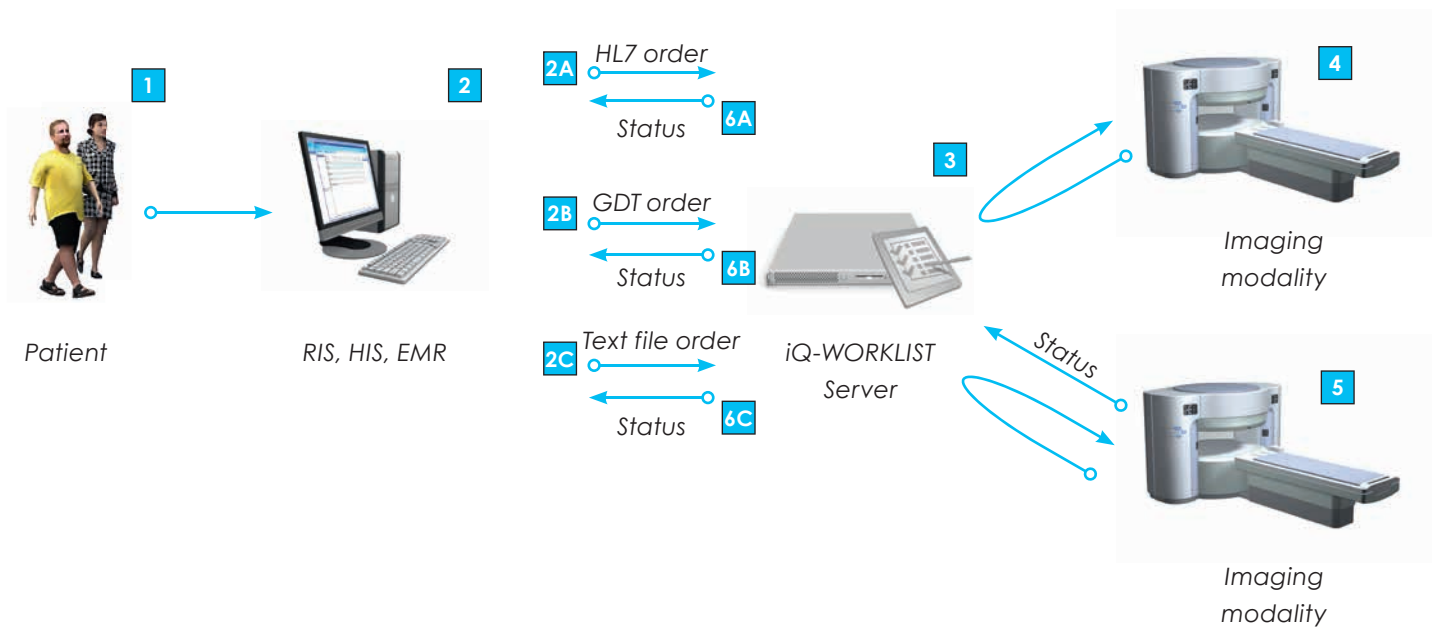
- Admission ID
- Current Patient Location
- Institution Name (NEW!)

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### STUDY

- Accession Number
- Requesting Physician
- Referring Physician's Name
- Requesting Service
- Requested Procedure ID, Requested Procedure Description
- Study Instance UID
- Requested Procedure Priority
- Patient Transport Arrangements
- Scheduled Station AE Title
- Scheduled Procedure Step Start Date and Start Time
- Modality
- Scheduled Performing Physician's Name
- Scheduled Procedure Step Description
- Scheduled Station Name (NEW!)
- Scheduled Procedure Step Location
- Scheduled Protocol Codes
- Scheduled Procedure Step ID

# iQ-WORKLIST BASIC/PRO WORKFLOW



**1** The patient is registered to a RIS, HIS, PMS, or any other medical information system (MIS).

**2** The MIS sends scheduling data to the iQ-WORKLIST server.  
 a) as an HL7 order  
 b) as a GDT order  
 c) as a text file

**3** iQ-WORKLIST collects the scheduling information in a local database and provides a DICOM worklist to any imaging modality.

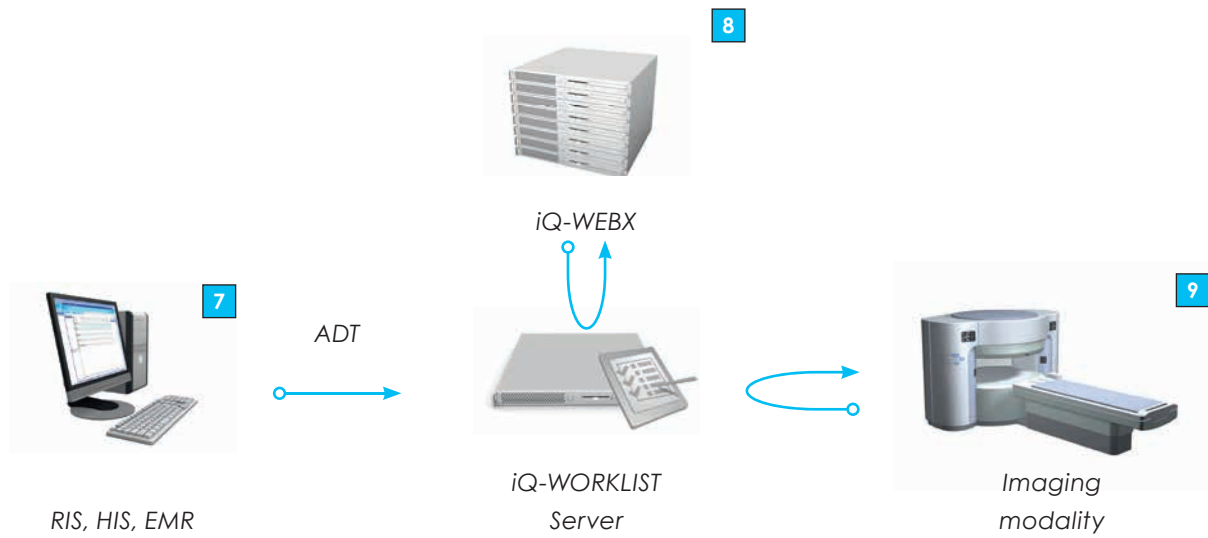
**4** The imaging modalities query the worklist manually or automatically to get accurate patient and scheduling information.

**5** The imaging modalities query the worklist manually or automatically and send status information back to iQ-WORKLIST.

**6** iQ-WORKLIST forwards the status information to the medical information system:  
 a) answering the HL7 order request  
 b) answering the GDT order request  
 c) in response to the text file

# iQ-WORKLIST PREMIUM WORKFLOW

IN ADDITION TO iQ-WORKLIST BASIC/PRO WORKFLOW



**7** The MIS sends an ADT message to iQ-WORKLIST, e.g. in case the patient information is unknown during initial imaging.

**8** iQ-WEBX queries iQ-WORKLIST in order to reconcile patient demographics after the identity of the patient is known or has changed.

**9** The imaging modalities query the worklist manually or automatically to get accurate patient and scheduling information.

## THE SOLUTION CAN BE SO SIMPLE



# iQ-WORKLIST FEATURES\*

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## GENERAL

- Runs as an NT service in the background
- Includes several logging levels for documentation and easy error tracking
- Fully automated workflow through MPPS (Modality Performed Procedure Steps)
- SQL database for enhanced performance and scalability
- Higher compatibility through Unicode support for virtually all languages, a customizable text parser, and **an extended list of supported worklist search keywords (NEW!)**
- Application and event acknowledgment support
- Message syntax dictionary

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## INPUT

- Reads HL7 order messages (ORM, OMG); (Refer to HL7 Conformance Statement for detailed information)
- Reads BDT/GDT data
- Reads study data from structured text files, **CSV and XML (NEW!)**
- Processes multiple sources (HL7/BDT/Text) concurrently
- Compatible to HL7 2.x
- Maps files using regular expressions to adapt BDT/GDT/Text file dialects
- Maps HL7 files using message fields
- HL7 network and file message listener
- Customizable actions based on incoming messages
- Support of multiple orders in a single order message

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## DICOM

- Serves up to two or five devices (DICOM WORKLIST SCU nodes)
- DICOM worklists based on scheduling data
- Creates unique Study Instance UIDs for the querying modalities
- Accession numbers can be created based on time stamps or incremented IDs
- Compatible with any DICOM worklist client
- Supports any modality queries, e.g. by patient name, patient ID, birth date, **institution name**, modality, scheduled station AE title, **scheduled station name**, scheduled procedure start time and date **(NEW!)**
- **Simplify the operator's job by setting worklist filters for devices that are not capable of doing this by themselves. Available filters are by modality, institution name, scheduled station AE, scheduled procedure start date and scheduled station name (NEW!)**

\* Detailed information on iQ-WORKLIST's system requirements is available in the iQ-WORKLIST 3.0 Instructions for Use.

# *iQ-WORKLIST PRO FEATURES*

*IN ADDITION TO iQ-WORKLIST FEATURES*

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## **DICOM**

- Serves up to 10 devices (DICOM WORKLIST SCU nodes)

# *iQ-WORKLIST PREMIUM FEATURES*

*IN ADDITION TO iQ-WORKLIST PRO*

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## **DICOM**

- Serves an unlimited number of devices (DICOM WORKLIST SCU nodes)

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## **INPUT**

- Reads HL7 ADT messages for DICOM modality worklist-based patient data reconciliation



# OUR COMPANY AT A GLANCE

IMAGE Information Systems is an international company group with offices in Germany, USA and India, which offers complete, user friendly and cost-effective medical imaging solutions.

Thousands of satisfied clients all over the world benefit from our state-of-the-art products for PACS, RIS, X-ray solutions, 3D processing and teleradiology.

We have pioneered several innovations in the market:

- We have introduced MED-TAB, the first DICOM-calibrated medical tablet worldwide to provide superior portable image analysis
- Our iQ-ROUTER supports virtually all DICOM image formats and transfer syntaxes in data transmission
- DICOMReader has the highest available read-in rate of patient CD-ROMs, ensuring compatibility with almost all available imaging modalities and vendors

IMAGE Information Systems provides the second largest digital imaging user forum on earth, enabling users to share knowledge and best practice.

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## OUR PRODUCTS FOR YOUR IMAGING NEEDS

**iQ-SYSTEM PACS**

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The smooth radiology information system

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