



# SLOVENSKI STANDARD

## SIST-TP CR 13058:2003

01-oktober-2003

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**Izmenjevanje medicinskih podatkov – Preslikovanje med modeli, specificiranimi v ENV 12539:1997 in NEMA PS3, Dopolnitev 10**

Medical data interchange - Mapping between the models specified in ENV 12539:1997 and NEMA PS3 Supplement 10

Austausch medizinischer Daten: Zuordnung der in ENV 12539:1997 und NEMA PS3 Supplement 10 spezifizierten Modelle

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Ta slovenski standard je istoveten z: **CR 13058:1997**

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**ICS:**

35.240.80	Uporabniške rešitve IT v zdravstveni tehniki	IT applications in health care technology
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specified in ENV 12539:1997 and NEMA PS3 Supplement 10**

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Modelle

This CEN Report was approved by CEN on 10 September 1997. It has been drawn up by the Technical Committee CEN/TC 251.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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**FOREWORD**

This Technical Report has been prepared by Technical Committee CEN/TC 251 "Medical informatics", the secretariat of which is held by SIS.

This Technical Report has been prepared under the direction of the European Committee for Standardisation (CEN) under voucher BC/CEN/93/17.7.

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## 1. INTRODUCTION AND SCOPE

This document shows the mapping between the models specified in NEMA PS3 Supplement 10 and those specified in ENV 12539:1997. The purpose of it is to show how a system (e.g. a RIS) can be developed so that it supports both standards.

The scope of NEMA PS3 Supplement 10 is communication between medical imaging modalities and information systems. An information system in this context can be any information system that supports healthcare activities such as care, diagnosis, logistics, and administration. This also incorporates PACS systems and departmental information systems (DISs), such as radiology information systems (RISs).

The scope of ENV 12539:1997 is messages for exchanging requests for, and reports of, diagnostic services. This includes messages for exchanging requests for, and reports of, investigations performed in medical imaging departments.

Therefore, in some cases, an information system may have to conform to both standards. For example, a RIS may conform to this Technical Report for interchange of information with one or more modalities, and may also conform to ENV 12539:1997 for exchanging requests and reports with a HIS

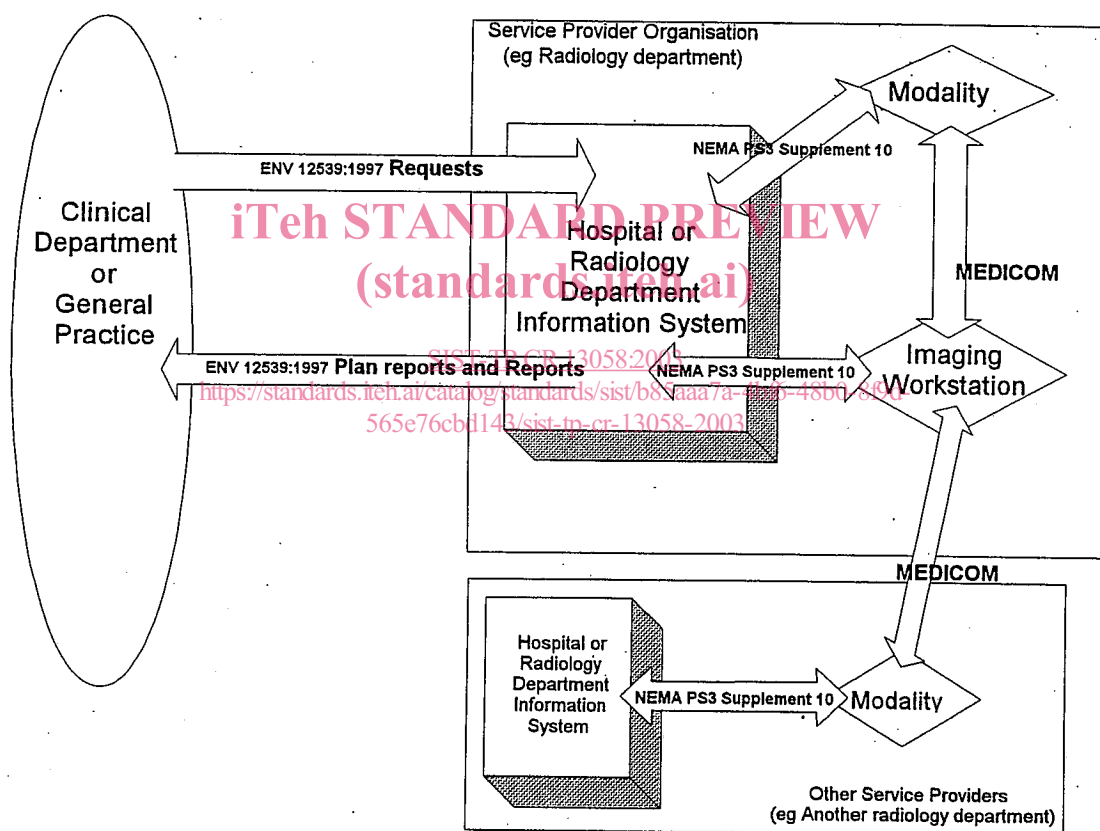


Figure 1: Domains of NEMA PS3 Supplement 10 and ENV 12539:1997

## 2. REFERENCES

This Technical Report incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Technical Report only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

NEMA PS 3	Supplement 10 "Basic Worklist Management (Modality Worklist Management SOP Class)"
CR 1350:1993	Investigation of syntaxes for existing interchange formats to be used in healthcare
ENV 12052:1995	Medical Informatics - Medical image and related data interchange format - MEDICOM
ENV 12539:1997	Medical Informatics - Request and report messages for diagnostic service departments

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### **3. DEFINITIONS AND ABBREVIATIONS**

#### **3.1 Definitions**

For the purposes of this standard the following definitions apply:

**departmental information system:** information system used within a healthcare department to serve the needs of that department.

**information system environment:** one or more information systems that support healthcare activities.

EXAMPLES: PACS systems, DIS, clinical systems, HIS, RIS.

**modality:** medical image acquisition device.

**worklist:** structured presentation of tasks to be performed by a modality

NOTE: usually includes task information, patient demographic information and scheduling information

#### **3.2 Abbreviations**

DICOM	Digital Imaging and Communications in Medicine
DIS	Departmental Information System
HIS	Hospital Information System
IS	Information System
MEDICOM	Medical Image Communication
PACS	Picture Archiving and Communication System
RIS	Radiology Information System
SOP Class	Service Object Pair Class

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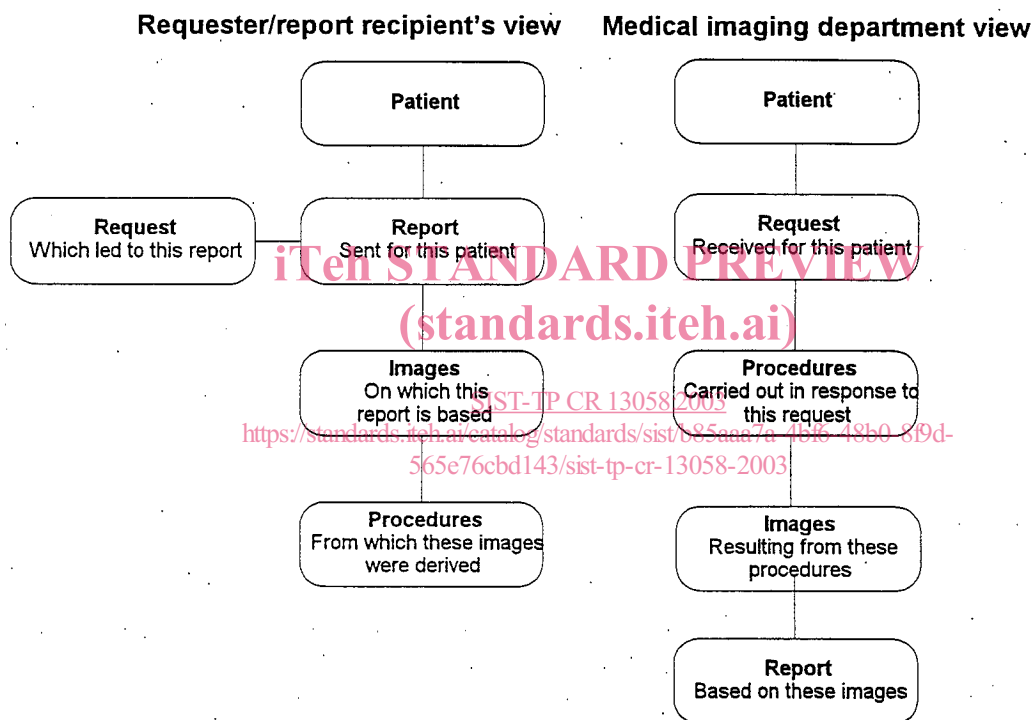


#### 4. USE OF DIFFERENT MODELS IN NEMA PS3 SUPPLEMENT 10 AND ENV 12539:1997

NEMA PS3 Supplement 10 models the medical imaging domain according to the principles established in DICOM. The models in ENV 12539:1997 are based on the principles established in CEN/TC 251/WG3, as described in CR 1350: 1993.

Also, each set of models has been derived for a specific purpose. In the case of ENV 12539:1997, the model was used to derive the message models and thereby define the messages. In the case of NEMA PS3 Supplement 10, the model has been used only to get agreement as to the concepts and relationships under discussion.

In addition, the two sets of models have been derived for different business purposes. ENV 12539:1997 supports the "business" of requesting examinations and receiving reports. NEMA PS3 Supplement 10 supports the "business" of organising work within a medical imaging department. Although each shares many of the same concepts, each has a different view of those concepts. This is illustrated in Figure 3 below.



**Figure 3: Different views of shared concepts related to a report**

Note: Figure 3 is an illustration of how models may differ according to the interests of the viewer. A requester/recipient of the report has different interests to those of the medical imaging department. Therefore the same concepts would be modelled differently to meet the needs of each.