PRESENTATION OUTLINE

• BACKGROUND

• SCOPE

• WHAT IS A GRAPHICAL ITEM?
  • THE REGISTER OF GRAPHICAL ITEMS
  • NORMATIVE REFERENCES
  • DEFINED CLASSES OF GRAPHICAL ITEMS
  • EXAMPLES OF GRAPHICAL ITEMS
  • STEPS TO REGISTER A GRAPHICAL ITEM
  • STEPS TO ADDING A NEW CLASS OF GRAPHICAL ITEM
  • SUBMITTING A PROPOSAL
  • CRITERIA FOR REJECTION OF A PROPOSAL
  • REQUESTING A COPY OF THE REGISTER
BACKGROUND

• Registration Authority for Graphical Items
  - International Organization for Standardization (ISO)
  - International Electrotechnical Commission (IEC)
    - Joint Technical Committee 1 (JTC 1)
      - Subcommittee 24 (SC 24) Computer Graphics and Image Processing

• Previous Registration Authority
  - National Institute of Standards and Technology (NIST)

• March 97 - National Imagery and Mapping Agency (NIMA) agrees to assume the duties of the Registration Authority

• August 97 - NIMA nominated by the American National Standards Institute (ANSI)

• April 98 - NIMA designated by the ISO/IEC Management Board as Registration Authority for Graphical Items
SCOPE

- ISO/IEC 9973: 1994 (E), Information Technology - Computer graphics and image processing - Procedures for registration of graphical items:
  - Published to provide a set of procedures for the registration of graphical items.
  - Establishes specific procedures to be followed in preparing, maintaining and publishing the International Register of Graphical Items.
  - Registration provides identification for a graphical item but should not be regarded as a standardization procedure.
WHAT IS A GRAPHICAL ITEM?

- A written or pictorial representation described in vivid detail.
- It has a particular purpose or meaning assigned to it.
- Individual items within defined classes as developed by the ISO/IEC JCT 1/SC 24.
THE REGISTER OF GRAPHICAL ITEMS

• The purpose of the register is to inform all concerned of items already registered and of the specific identifiers and meanings assigned to them.

• Publication of the register promotes compatibility of international information exchange and avoids duplication of effort in development of application-oriented graphical items.

• The register includes current classes of graphical items and registered graphical items for relevant International Standards developed by ISO/IEC/JTC 1/SC 24.

• The copyright of the register belongs to the Information Technology Task Force (ITTF) which may release the copyright to the JTC 1 Registration Authority as long as it functions in this capacity.
The NIMA, as registration authority, is responsible for graphical items associated with the following:

- ISO/IEC 9973, Information technology - Computer graphics and image processing - Procedures for registration of graphical items;

- ISO/IEC 9592, Parts 1-4, Information technology - Computer graphics - Programmer’s Hierarchical Interactive Graphics System (PHIGS);

- ISO/IEC 7942 Parts 1-4, Information technology - Computer graphics  Graphical Kernel System for Three Dimensions (GKS);

- ISO 8805, Information processing systems - Computer graphics - Graphical Kernel System for Three Dimensions (GKS-3D) functional description;
• ISO/IEC 10641, Information technology - Computer graphics and image processing - Conformance testing of implementation of graphical standards;


• ISO/IEC 8632 Parts 1-4, Information technology - Computer Graphics Metafile for the storage and transfer of picture description information;

• ISO/IEC 9636 Parts 1-6, Information technology - Computer graphics - Interfacing techniques for dialogues with graphical devices (CGI) - Functional Specification;

• ISO 8561-4:1991, Information processing systems - Computer graphics - Graphical Kernel System (GKS) language bindings - Part 4: C;


• ISO/IEC 9637, Parts 1-2, Information technology - Computer graphics - Interfacing techniques for dialogues with graphical devices (CGI) - Data stream binding - Character and Binary encodings.
The following classes of graphical items are defined for the ISO Register of Graphical Items:

- Linetype
- Hatchstyle
- Prompt & Echo
- Escape
- Edge Type
- Echo Type
- Measure Format Identifier
- Color Model
- Generalized Structure Element
- Modeling Clipping Operators
- Line Caps
- Application Structures
- CGM Profile
- PIKS Profile

- Markertype
- Textfont
- GDP
- Error
- Prompt Type
- Acknowledgment Type
- Compression Type
- GDP-3
- Annotation Style
- Patterns
- Interpolated Interior
- Style
- BIIF Profile

Additional classes may be identified in the ISO graphics standards as being registerable items.
EXAMPLES OF GRAPHICAL ITEMS FOR SEVERAL CLASSES

• Linetypes:

  Linetype value: 7

  Linetype value: 8

• Markertypes:

  Markerstyle value: 14

  Markerstyle value: 16
• ESCAPE FUNCTION:

This escape function defines a colour value (colour index (CI) or direct colour value (CI), dependent on the Colour Selection Mode) to be "transparent" when used as the value of a cell of a CELL ARRAY element, a PATTERN TABLE element, a TILE element, or a BITONAL TILE.

Parameters:

function identifier (I) -- value is 22 as assigned by the Registration Authority

data record (D):

E: 1
transparency indicator (one of: off, on)

CO: 1 (CI or CD, depending upon COLOUR SELECTION MODE)
transparent cell colour specifier
PROPOSAL FOR REGISTRATION OF GRAPHICAL ITEMS

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<thead>
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<th>Proposal Number:</th>
<th>1</th>
</tr>
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<tr>
<td>Date of Presentation:</td>
<td>3 June 1986</td>
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<tr>
<td>Sponsoring Authority:</td>
<td>DIN</td>
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<tr>
<td>Class of Graphical Items:</td>
<td>LINETYPE</td>
</tr>
<tr>
<td>Name:</td>
<td>dashed-dotted-dotted</td>
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</tbody>
</table>

**Description**

A repeating pattern of three line segments and three gaps, in which the first line segment is larger than the second and third line segments and the second and third line segments are equal in length. The gaps are equal in length. The intended visual representation of this linetype is illustrated below.

```
  ___________
 /             /
|______________|
 |             |
 |             |
```

**Additional Comments**

**Justification for Inclusion**

This linetype is already present in the CGM. The same linetype value should be registered for use by other graphics standards.

**Relationship to Standards**

1) ISO/IEC 7942:1985, Information processing systems - Computer graphics - Graphical Kernel System (GKS) functional specification - Specifies a registered line type defined in subclause 5.4.1 of ISO 7942.
2) ISO/IEC 8632-1:1992, Information technology - Computer graphics - Metafile for the storage and transfer of picture description information - Part 1: Functional specification (CGM) - Specifies a registered line type defined in subclause 5.7.2 of ISO 8632-1.
3) ISO/IEC 8805:1988, Information processing systems - Computer graphics - Graphical Kernel System for 3D (GKS-3D) functional description - Specifies a registered line type defined in subclause 5.4.1 of ISO 8805.
4) ISO/IEC 9592-1:1989, Information processing systems - Computer graphics - Programmer's Hierarchical Interactive Graphics System (PHIGS) functional description - Specifies a registered linetype defined in subclause 5.4.2 or ISO 9592-1.
5) ISO/IEC 9636:1991 Parts 1 - 6, Information technology - Computer graphics - Interfacing techniques for dialogues with graphical devices (CGI) - Functional specification - Specifies a registered line type defined in subclause 5.3.2 of ISO 9636-3.
Steps to Register a Graphical Item

1. Proposal

2. Refer for Member Body vote

3. Vote as necessary

4. Voting results (accept/reject)

5. Enter or delete accepted proposals in Register

6. Results of processing

7. Copies requested

Sponsoring Authority → REGISTRATION AUTHORITY → Public

SC 24 Secretariat

Register

Member Bodies, Liaison Organizations of ISO/IEC JTC 1/SC 24
DEFINITION OF A SPONSORING AUTHORITY

• Proposals for adding, deleting, or adding language bindings or encodings may be made by the following organizations which for purposes of ISO/IEC 9973, are Sponsoring Authorities:

  • Any ISO or IEC Technical Committee or Subcommittee.

  • Any P-member (Participating) or O-member (Observing) member of ISO/IEC JTC 1 or ISO/IEC JTC 1/SC 24.

  • Any international organization having Category A liaison status with ISO/IEC JTC 1 or ISO/IEC JTC 1/SC 24.
STEPS TO ADDING NEW CLASS OF GRAPHICAL ITEMS

1. Decide on New Class
   Rapporteur Group for Registration and/or Functional Standards Developer
   Distribute in WG’s and request comments

2. Process Comments
   Working Group on Registration and/or Functional Standards Working Group
   Submit New Class of Graphical Item Proposal

3. Process Comments
   Working Group for Registration and Functional Standard Developers
   SC 24 Letter Ballot

4. Distribute Accepted Classes
   SC 24
   Registration Authority

5. Update
   Registration Information Pack
   Distribute
   Public
HOW TO SUBMIT A PROPOSAL

The following information shall be submitted for a proposal of any class of graphical items:

Presentation date of Proposal:

Sponsoring Authority:

Class of Graphical Item:

Name (if appropriate)

Picture (if appropriate):

Additional Comments:

Justification for Inclusion:

At least one language binding or encoding (if appropriate):
CRITERIA FOR REJECTION OF PROPOSALS

- Incomplete or incomprehensible definition of the graphical items.
- Incorrect or incomplete language binding or data encoding information.
- Existence of an identical item in the register.
- Graphical item class does not exist.
- Non-applicable to any of the International Standards developed by ISO/IEC JTC 1/SC 24.
- Inadequate justification for inclusion in the register.
MODIFICATIONS OF PROPOSALS

• Proposals for modifications of registered graphical items will not be considered.

• Proposals for additional language bindings and encodings may be submitted for inclusion.

• The language binding or encoding will be added to the Registered Items without change to the existing information.

• Additional language bindings and encodings are handled as new proposals.

• Requests for clarification may be submitted by Sponsoring Authorities for approval.
TO GET A COPY OF THE REGISTER

• Submit a request in writing for a hardcopy to the following address:

  Registration Authority  
  National Imagery and Mapping Agency  
  c/o Joint Interoperability Test Command  
  Building 57305, Room 263A  
  Fort Huachuca, Arizona  85613-7020  
  USA

• View on-line at the following URL: