Information Classification
Using OmniClass™

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Building Knowledge
Improving Project Delivery
Topics

→ What is OmniClass?
→ Why Classification?
→ OmniClass 101
→ OmniClass in NBIMS
→ OmniClass and Engineering-Heavy Projects
→ Looking Ahead
So what is OmniClass?

→ 15 table faceted classification system
→ In development since 2001
→ North American in focus
→ Designed to classify concepts in all types of construction through the full facility life cycle
**OmniClass Tables:**

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Const. Entities by Function</td>
<td>31</td>
</tr>
<tr>
<td>12</td>
<td>Const. Entities by Form</td>
<td>32</td>
</tr>
<tr>
<td>13</td>
<td>Spaces by Function</td>
<td>33</td>
</tr>
<tr>
<td>14</td>
<td>Spaces by Form</td>
<td>34</td>
</tr>
<tr>
<td>21</td>
<td>Elements – <em>(UniFormat)</em></td>
<td>35</td>
</tr>
<tr>
<td>22</td>
<td>Work Results – <em>(MasterFormat)</em></td>
<td>36</td>
</tr>
<tr>
<td>23</td>
<td>Products</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>49</td>
</tr>
</tbody>
</table>
Why Classification?

Classification Uses:

– Storage
– Retrieval
– Analysis
– Presentation

Classification’s value comes from the order it provides to information – the “human-facing side of BIM”
Classification Basics

→ Classification is the **grouping of like concepts** and their arrangement into a **hierarchy** – broader concepts (parents) to narrower concepts (children)

→ Two basic types:

**Enumerative**

**Faceted**
Enumerative Classification

All concepts are arranged in a **single hierarchical listing**

→ More traditional and common (Dewey Decimal, Library of Congress)
→ Considered easier to use
→ Fundamentally “flat” architecture
→ More prone to conflict
→ Less flexible
Enumerative Classification

Faceted Classification

Concepts are arranged in **multiple parallel hierarchies** that view the subject area from a variety of perspectives or “facets”

→ Individual tables tend to be smaller and simpler
→ Multi-table architecture makes it far more useful in databases
→ Far more flexible
→ Less prone to conflict
→ Less commonly used
→ Sometimes difficult for users
Faceted Classification

Classification Tables

Color Table
- **Parent Concept**
  - Child Concept
    - Child of Child Concept
    - Child of Child Concept
    - Child of Child Concept
    - Child of Child Concept
  - Child Concept

Materials Table
- **Parent Concept**
  - Child Concept
    - Child of Child Concept
    - Child of Child Concept
    - Child of Child Concept
    - Child of Child Concept
  - Child Concept

Shape Table
- **Parent Concept**
  - Child Concept
    - Child of Child Concept
    - Child of Child Concept
    - Child of Child Concept
    - Child of Child Concept
  - Child Concept

Object = **Red Rubber Ball**
OmniClass 101
Roots of OmniClass Table Concept

Classification of Information in the Construction Industry

→ ISO TC59/SC13/WG2:
OmniClass Administration

→ OmniClass administered by CSI and Construction Specifications Canada (CSC)

→ OmniClass content developed by an all-volunteer cross-industry committee (OmniClass Development Committee)
  – Content is reviewed in alternating two-year cycles
  – Committee membership open to all
Table reviews scheduled:

→ **Review Cycle 1** *(2012-2014, 2016-2018)* –
  Tables 13, 23, 31, 32, 36, 49

  Tables 11, 12, 14, 33, 34, 35, 41

Tables are occasionally moved between review cycles as needed
OmniClass Status

→ 2012-2014 Review Cycle underway now.
→ Working Groups charged:
  – *Spaces* (Tables 13 – Spaces by Function and 14 – Spaces by Form)
  – *Products* (Table 23 – Products)
→ Intent is to continue refinement and add content
→ Review Cycle scheduled to complete in June 2014
OmniClass in NBIMS-US
OmniClass Tables:
11 Const. Entities by Function
12 Const. Entities by Form
13 Spaces by Function
14 Spaces by Form
21 Elements – \textit{(UniFormat)}
22 Work Results – \textit{(MasterFormat)}
23 Products
31 Phases
32 Services
33 Disciplines
34 Organizational Roles
35 Tools
36 Information
41 Materials
49 Properties
OmniClass Tables:

11 Const. Entities by Function
12 Const. Entities by Form
13 Spaces by Function
14 Spaces by Form
21 Elements – *(UniFormat)*
22 Work Results – *(MasterFormat)* (revisions balloted in v3.0)
23 Products

Balloted with NBIMS-US v2.0
Being Balloted with NBIMS-US v3.0
To be Balloted for a future version of NBIMS-US

31 Phases
32 Services
33 Disciplines
34 Organizational Roles
35 Tools
36 Information
41 Materials
49 Properties
OmniClass and buildingSMART

→ OmniClass is an NBIMS-US Reference Standard
→ OmniClass also referenced by:
  → Information exchanges:
    → COBie
    → HVACie
    → Sparkie
    → WSie
    → ...
  → buildingSMART Data Dictionary
→ Others...
OmniClass and Engineering-Heavy Projects
OmniClass and Engineering Projects

→ All OmniClass Tables designed to classify objects in all types of projects
OmniClass and Engineering Projects

→ OmniClass content:
  → Developed by volunteers (OmniClass Development Committee – ODC)
  → Engineering content has been developed by members of many large engineering firms
  → ODC participation is free and open to all interested parties
OmniClass and UniFormat

→ OmniClass Table 21 – Elements based on CSI/CSC UniFormat

→ UniFormat currently undergoing expansion for engineering-heavy project types:
  → Utilities
  → Transportation
  → Water and Wastewater
  → Electrical Power Generation
  → Process Plants

→ UniFormat task team composed of 15-20 engineers from firms with extensive experience in these areas

→ There is always room for more ideas and input
Looking Ahead
Using *OmniClass*

→ *OmniClass* implementation

- Strong interest from owners with portfolios to manage
- Education available from CSI in calendar 2014
- End users will primarily access through other tools – software, information resources, etc.

→ Tables available at [www.omniclass.org](http://www.omniclass.org)
New version of *OmniClass* website in beta now, intended outcomes:

- Web services for software
- More formats for table distribution
- Easier participation for current and new ODC members

http://beta.omniclass.org

*(still many broken links on site, but please visit)*
OmniClass™ is a comprehensive classification system for the construction industry. OmniClass can be used for many applications, such as organizing library materials, product literature, and project information, but its chief applications will be in providing a classification structure for electronic databases and software that implements them, to enrich the information available from those resources. It incorporates other extant systems currently in use as the basis of some of its Tables — such as MasterFormat® for work results and UniFormat™ for elements.

OmniClass is designed to provide a standardized basis for classifying information created and used by the North American architectural, engineering, and construction industry, throughout the full facility life cycle from conception to demolition or reuse, and encompassing all of the different types of construction that make up the built environment. OmniClass is intended to be the means for organizing, sorting, and retrieving information, and standardizing digital data exchanges.

# OmniClass Beta Site

**Please note:** This is a beta version of the official OmniClass site; information provided on this site is for testing and development purposes only. **Please do not rely upon or implement any information presented on beta.omniclass.org.** For official versions of the tables and associated information, please go to www.omniclass.org. Thank you.

## Table 13

<table>
<thead>
<tr>
<th>National Standard</th>
<th>Release Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-11 00 00 Space Planning Types</td>
<td>2012-08-16</td>
</tr>
<tr>
<td>13-13 00 00 Void Areas</td>
<td></td>
</tr>
<tr>
<td>13-15 00 00 Wall Spaces</td>
<td></td>
</tr>
<tr>
<td>13-17 00 00 Encroachment Spaces</td>
<td></td>
</tr>
<tr>
<td>13-21 00 00 Parking Spaces</td>
<td></td>
</tr>
<tr>
<td>13-23 00 00 Facility Service Spaces</td>
<td></td>
</tr>
<tr>
<td>13-25 00 00 Circulation Spaces</td>
<td></td>
</tr>
<tr>
<td>13-31 00 00 Education and Training Spaces</td>
<td></td>
</tr>
<tr>
<td>13-33 00 00 Recreation Spaces</td>
<td></td>
</tr>
<tr>
<td>13-35 00 00 Government Spaces</td>
<td></td>
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<tr>
<td>13-37 00 00 Artistic Spaces</td>
<td></td>
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<td>13-41 00 00 Museum Spaces</td>
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<td>13-45 00 00 Library Spaces</td>
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</tr>
<tr>
<td>13-47 00 00 Spiritual Spaces</td>
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<tr>
<td>13-49 00 00 Environmentally Controlled Spaces</td>
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</tr>
<tr>
<td>13-51 00 00 Healthcare Spaces</td>
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<td>13-53 00 00 Laboratory Spaces</td>
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<td>13-56 00 00 Commerce Activity Spaces</td>
<td></td>
</tr>
<tr>
<td>13-57 00 00 Service Activity Spaces</td>
<td></td>
</tr>
<tr>
<td>13-59 00 00 Production, Fabrication, and Maintenance Spaces</td>
<td></td>
</tr>
<tr>
<td>13-61 00 00 Protective Spaces</td>
<td></td>
</tr>
<tr>
<td>13-63 00 00 Storage Spaces</td>
<td></td>
</tr>
</tbody>
</table>

Spaces by Function are basic units of the built environment delineated by physical or abstract boundaries and characterized by function.
### Table 13

<table>
<thead>
<tr>
<th>Status</th>
<th>Release Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Standard</td>
<td>2012-05-16</td>
</tr>
</tbody>
</table>

Spaces by Function are basic units of the built environment delineated by physical or abstract boundaries and characterized by function.

#### 13-23 15 00 Loading Dock

510EACE-CEBA-469D-B792-C781EE7CF76

**Definition(s):** A secondary building entrance space used to accommodate shipping and delivery of bulk materials to the structure.

- **13-11 00 00 Space Planning Types**
- **13-13 00 00 Void Areas**
- **13-15 00 00 Wall Spaces**
- **13-17 00 00 Encroachment Spaces**
- **13-21 00 00 Parking Spaces**
- **13-23 00 00 Facility Service Spaces**
- **13-23 11 00 Vertical Penetration**
- **13-23 12 00 Horizontal Infrastructure/Service Space, Non-Occupied**
- **13-23 13 00 Control Room**
- **13-23 15 00 Loading Dock**
- **13-23 17 00 Restroom**
- **13-23 19 00 Utility Equipment Room**
- **13-23 21 00 Waste and Recycling Spaces**
- **13-23 23 00 Building Service Support Spaces**
- **13-23 25 00 Equipment Platform**
- **13-23 27 00 Interstitial Space**
- **13-23 29 00 Unimproved Shell**
- **13-23 31 00 Alteration or Conversion Space**
Please note: This is a beta version of the official OmniClass site. Information provided on this site is for testing and development purposes only. Please do not rely upon or implement any information presented on beta.omniclass.org. For official versions of the tables and associated information, please go to www.omniclass.org. Thank you.

Search for:

- Number
- Title
- Definitions
- Other Metadata

NS: National Standard
R: Released
PCAD: Pre-Consensus Draft
D: Draft

Search within:
- ALL Tables

Table:
Please select...
**OmniClass Beta Site**

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### Tables

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-37</td>
<td>65 23 Loading Platform/Ramp</td>
<td>A structure from which trucks or rail cars can be loaded or unloaded by moving the load di...</td>
</tr>
<tr>
<td>11-51</td>
<td>34 23 Airfield Apron</td>
<td>An area provided for aircraft parking, servicing, and loading.</td>
</tr>
<tr>
<td>13-21</td>
<td>11 00 Exterior Parking Spaces</td>
<td>Outdoor area used for transient storage of motor vehicles, not including loading docks, sa...</td>
</tr>
<tr>
<td>13-23</td>
<td>15 00 Loading Dock</td>
<td>A secondary building entrance space used to accommodate shipping and delivery of bulk mate...</td>
</tr>
<tr>
<td>13-03</td>
<td>13 25 Consolidation/Containerization Point</td>
<td>Space for outbound...</td>
</tr>
</tbody>
</table>

### Search Results

- **62 Record(s) found.**

**Export Options:** [Excel] [XML]
Interested?

For more information:
www.omniclass.org

To join the OmniClass Development Committee, send an email to: omniclass@csinet.org
Thanks

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