Version 1.10.0

Need to explain what the version parts mean.

New for 1.10.0

<table>
<thead>
<tr>
<th>Element changed</th>
<th>what changed</th>
<th>Enumeration Valid Values</th>
<th>ECSE Issue</th>
<th>CMR Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>CollectionProgress</td>
<td>CollectionProgress changed its type from a string to an enumeration.</td>
<td>PLANNED, ACTIVE, COMPLETE, NOT APPLICABLE</td>
<td>warnings: {ECSE-172: project doesn't exist or you don't have permission to view it}, {CMR-3691: project doesn't exist or you don't have permission to view it}</td>
<td>warnings: {ECSE-172: project doesn't exist or you don't have permission to view it}, {CMR-3691: project doesn't exist or you don't have permission to view it}</td>
</tr>
<tr>
<td>TilingIdentificationSystemName</td>
<td>TilingIdentificationSystemName changed its type from a string to an enumeration.</td>
<td>CALIPSO, MISR, MODIS Tile EASE, MODIS Tile StN, WELD Alaska Tile, WELD CONUS Tile, WRS-1, WRS-2</td>
<td>warnings: {ECSE-231: project doesn't exist or you don't have permission to view it}, {CMR-3675: project doesn't exist or you don't have permission to view it}</td>
<td>warnings: {ECSE-231: project doesn't exist or you don't have permission to view it}, {CMR-3675: project doesn't exist or you don't have permission to view it}</td>
</tr>
<tr>
<td>Platform/Characteristics/DataType</td>
<td>Changed from a string to an enumeration type</td>
<td>&quot;STRING&quot;, &quot;FLOAT&quot;, &quot;INT&quot;, &quot;BOOLEAN&quot;, &quot;DATE&quot;, &quot;TIME&quot;, &quot;DATETIME&quot;, &quot;DATE_STRING&quot;, &quot;TIME_STRING&quot;, &quot;DATETIME_STRING&quot;</td>
<td>warnings: {ECSE-232: project doesn't exist or you don't have permission to view it}, {CMR-3366: project doesn't exist or you don't have permission to view it}</td>
<td>warnings: {ECSE-232: project doesn't exist or you don't have permission to view it}, {CMR-3366: project doesn't exist or you don't have permission to view it}</td>
</tr>
<tr>
<td>SpatialExtent/VerticalSpatialDomain/Type</td>
<td>Changed from a string to an enumerated type</td>
<td>Atmosphere Layer, Maximum Altitude, Maximum Depth, Minimum Altitude, Minimum Depth</td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
</tr>
<tr>
<td>SpatialInformation/VerticalCoordinateSystem/AltitudeSystemDefinition/DistanceUnits</td>
<td>Changed from a string to an enumerated type</td>
<td>HectoPascals, Kilometers, Millibars</td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
</tr>
<tr>
<td>SpatialInformation/VerticalCoordinateSystem/AltitudeSystemDefinition/EncodingMethod</td>
<td>Removed</td>
<td></td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
</tr>
<tr>
<td>SpatialInformation/VerticalCoordinateSystem/DepthSystemDefinition/DistanceUnits</td>
<td>Changed from a string to an enumerated type</td>
<td>Fathoms, Feet, HectoPascals, Meters, Millibars</td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
</tr>
<tr>
<td>SpatialInformation/VerticalCoordinateSystem/DepthSystemDefinition/EncodingMethod</td>
<td>Removed</td>
<td></td>
<td>warnings: {ECSE-233: project doesn't exist or you don't have permission to view it}, {CMR-3365: project doesn't exist or you don't have permission to view it}</td>
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</tr>
</tbody>
</table>
### SpatialInformation/Horizontal CoordinateSystem/
- Changed from a string to an enumerated type
- GeographicCoordinateSystem/GeographicCoordinateUnits
- Decimal Degrees, Kilometers, Meters

<table>
<thead>
<tr>
<th>Element</th>
<th>Definition</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>MetadataLanguage</td>
<td>The language used in the metadata record.</td>
<td>...</td>
</tr>
<tr>
<td>MetadataDates</td>
<td>Dates related to activities involving the metadata record itself. For example, Future Review date is the date that the metadata record is scheduled to be reviewed.</td>
<td></td>
</tr>
<tr>
<td>DirectoryNames</td>
<td>Formerly called Internal Directory Name (IDN) Node (IDN_Node). This element has been used historically by the GCMD internally to identify association, responsibility and/or ownership of the dataset, service or supplemental information. Note: This field only occurs in the DIF. When a DIF record is retrieved in the ECHO10 or ISO 19115 formats, this element will not be translated.</td>
<td></td>
</tr>
<tr>
<td>EntryTitle</td>
<td></td>
<td></td>
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<tr>
<td>DOI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DataLanguage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DataDates</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Summary

- **ECSE-233 - JIRA**: Project doesn't exist or you don't have permission to view it.
- **CMR-3365 - JIRA**: Project doesn't exist or you don't have permission to view it.
- **ECSE-234 - JIRA**: Project doesn't exist or you don't have permission to view it.
- **CMR-3367 - JIRA**: Project doesn't exist or you don't have permission to view it.
- **ECSE-235 - JIRA**: Project doesn't exist or you don't have permission to view it.
- **CMR-4464 - JIRA**: Project doesn't exist or you don't have permission to view it.

- **JIRA project doesn't exist or you don't have permission to view it.**
  - View these issues in JIRA
<table>
<thead>
<tr>
<th>DataCenters</th>
<th>ContactGroups</th>
<th>ContactPersons</th>
<th>CollectionDataType</th>
<th>ProcessingLevel</th>
<th>CollectionCitations</th>
<th>Collection Progress</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>Describes the production status of the data set. There are three choices: PLANNED refers to data sets to be collected in the future and are thus unavailable at the present time. For Example: The Hydro spacecraft has not been launched, but information on planned data sets may be available. ACTIVE refers to data sets currently in production or data that is continuously being collected or updated. For Example: data from the AIRS instrument on Aqua is being collected continuously. COMPLETE refers to data sets in which no updates or further data collection will be made. For Example: Nimbus-7 SMMR data collection has been completed. NOT APPLICABLE refers to data sets where collection progress doesn't make sense. For example a calibration collection record. NOT PROVIDED - It is necessary for this value to exist so that the CMR can translate older non UMM compliant records into the latest UMM specification where CollectionProgress is required.</td>
<td>Yes</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
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</tr>
<tr>
<td>UseConstraints</td>
<td>Designed to protect privacy and/or intellectual property by allowing the author to specify how the collection may or may not be used after access is granted. This includes any special restrictions, legal prerequisites, terms and conditions, and/or limitations on using the item. Providers may request acknowledgement of the item from users and claim no responsibility for quality and completeness. Note: Use Constraints describe how the item may be used once access has been granted; and is distinct from Access Constraints, which refers to any constraints in accessing the item.</td>
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<tr>
<td>AccessConstraints</td>
<td></td>
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</tr>
<tr>
<td>TilingIdentificationSystems</td>
<td>still in progress</td>
<td></td>
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</tr>
<tr>
<td>MetadataLanguage</td>
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<td></td>
<td></td>
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<tr>
<td>MetadataDates</td>
<td>Dates related to activities involving the metadata record itself. For example, Future Review date is the date that the metadata record is scheduled to be reviewed.</td>
<td></td>
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<td>DirectoryNames</td>
<td>Formerly called Internal Directory Name (IDN) Node (IDN_Node). This element has been used historically by the GCMD internally to identify association, responsibility and/or ownership of the dataset, service or supplemental information. Note: This field only occurs in the DIF. When a DIF record is retrieved in the ECHO10 or ISO 19115 formats, this element will not be translated.</td>
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<tr>
<td>DOI</td>
<td>This element stores the DOI (Digital Object Identifier) that identifies the collection. Note: The values should start with the directory indicator which in ESDIS' case is 10. If the DOI was registered through ESDIS, the beginning of the string should be 10.5067. The DOI URL is not stored here; it should be stored as a RelatedURL. The DOI organization that is responsible for creating the DOI is described in the Authority element. For ESDIS records the value of <a href="http://dx.doi.org/">http://dx.doi.org/</a> should be used.</td>
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<tr>
<td>Abstract</td>
<td>A brief description of the collection or service the metadata represents.</td>
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<tr>
<td>Purpose</td>
<td>Suggested usage or purpose for the collection data or service.</td>
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</tr>
<tr>
<td>DataLanguage</td>
<td>Describes the language used in the preparation, storage, and description of the collection. It is the language of the collection data themselves. It does not refer to the language used in the metadata record (although this may be the same language).</td>
<td></td>
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</tr>
<tr>
<td>DataDates</td>
<td>Dates related to activities involving the collection data. For example, Creation date is the date that the collection data first entered the data archive system.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
"DataCenters": {
  "description": "Information about the data centers responsible for this collection and its metadata.",
  "type": "array",
  "items": {
    "$ref": "umm-cmn-json-schema.json#/definitions/DataCenterType"
  },
  "minItems": 1
},

"ContactGroups": {
  "description": "Information about the personnel groups responsible for this collection and its metadata.",
  "type": "array",
  "items": {
    "$ref": "umm-cmn-json-schema.json#/definitions/ContactGroupType"
  }
},

"ContactPersons": {
  "description": "Information about the personnel responsible for this collection and its metadata.",
  "type": "array",
  "items": {
    "$ref": "umm-cmn-json-schema.json#/definitions/ContactPersonType"
  }
},

"CollectionDataType": {
  "description": "Identifies the collection as a Science Quality collection or a non-science-quality collection such as a Near-Real-Time collection.",
  "$ref": "#definitions/CollectionDataTypeEnum"
},

"ProcessingLevel": {
  "description": "The identifier for the processing level of the collection (e.g., Level0, Level1A).",
  "$ref": "#definitions/ProcessingLevelType"
},

"CollectionCitations": {
  "description": "Information required to properly cite the collection in professional scientific literature. This element provides information for constructing a citation for the item itself, and is not designed for listing bibliographic references of scientific research articles arising from search results. A list of references related to the research results should be in the Publication Reference element.",
  "type": "array",
  "items": {
    "$ref": "umm-cmn-json-schema.json#/definitions/ResourceCitationType"
  },
  "minItems": 0
},

"CollectionProgress": {
  "description": "Describes the production status of the data set. There are three choices: PLANNED refers to data sets to be collected in the future and are thus unavailable at the present time. For Example: The Hydro spacecraft has not been launched, but information on planned data sets may be available. IN WORK refers to data sets currently in production or data that is continuously being collected or updated. For Example: data from the AIRS instrument on Aqua is being collected continuously. COMPLETE refers to data sets in which no updates or further data collection will be made. For Example: Nimbus-7 SMMR data collection has been completed.",
  "type": "string",
  "minLength": 1,
  "maxLength": 80,
  "pattern": "\[\w\]{1,79}"
},

"Quality": {
  "description": "Free text description of the quality of the collection data. Description may include: 1) succinct description of the quality of data in the collection; 2) Any quality assurance procedures followed in producing the data in the collection; 3) indicators of collection quality or quality flags - both validated or invalidated; 4) recognized or potential problems with quality; 5) established quality control mechanisms; and 6) established quantitative quality measurements.",
  "$ref": "umm-cmn-json-schema.json#/definitions/QualityType"
},

"UseConstraints": {
  "description": "Designed to protect privacy and/or intellectual property by allowing the author to specify how the collection may or may not be used after access is granted. This includes any special restrictions, legal prerequisites, terms and conditions, and/or limitations on using the item. Providers may request acknowledgement of the item from users and claim no responsibility for quality and completeness. Note: Use Constraints describe how the item may be used once access has been granted; and is distinct from Access Constraints, which refers to any constraints in accessing the item.",
  "$ref": "umm-cmn-json-schema.json#/definitions/UseConstraintsType"
},

"AccessConstraints": {
  "description": "Allows the author to constrain access to the collection. This includes any special restrictions, legal prerequisites, limitations and/or warnings on obtaining collection data. Some words that may be used in this element's value include: Public, In-house, Limited, None. The value field is used for special ACL rules (Access Control Lists (http://en.wikipedia.org/wiki/Access_control_list)). For example it can be used to hide metadata when it isn't ready for public consumption.",
  "$ref": "umm-cmn-json-schema.json#/definitions/AccessConstraintsType"
}
"$ref": "umm-cmn-json-schema.json#/definitions/AccessConstraintsType"
],
"Distributions": {
"description": "Describes media options, size, data format, and fees involved in distributing the data from this collection."
,"type": "array",
"items": {
"$ref": "umm-cmn-json-schema.json#/definitions/DistributionType"
},
"minItems": 0
},
"PublicationReferences": {
"description": "Describes key bibliographic citations pertaining to the collection."
,"type": "array",
"items": {
"$ref": "umm-cmn-json-schema.json#/definitions/PublicationReferenceType"
},
"minItems": 0
},
"ISOTopicCategories": {
"description": "Identifies the topic categories from the EN ISO 19115-1:2014 Geographic Information – Metadata – Part 1: Fundamentals (http://www.isotc211.org/) Topic Category Code List that pertain to this collection, based on the Science Keywords associated with the collection. An ISO Topic Category is a high-level thematic classification to assist in the grouping of and search for available collections."
,"type": "array",
"items": {
"type": "string",
"minLength": 1,
"maxLength": 4000
},
"minItems": 0
},
"ScienceKeywords": {
"description": "Controlled Science Keywords describing the collection. The controlled vocabulary for Science Keywords is maintained in the Keyword Management System (KMS)."
,"type": "array",
"items": {
"$ref": "umm-cmn-json-schema.json#/definitions/ScienceKeywordType"
},
"minItems": 1
},
"AncillaryKeywords": {
"description": "Allows authors to provide words or phrases outside of the controlled Science Keyword vocabulary, to further describe the collection."
,"type": "array",
"items": {
"$ref": "umm-cmn-json-schema.json#/definitions/AncillaryKeywordStringType"
},
"minItems": 0
},
"AdditionalAttributes": {
"description": "The data’s distinctive attributes of the collection (i.e. attributes used to describe the unique characteristics of the collection which extend beyond those defined)."
,"type": "array",
"items": {
"$ref": "umm-cmn-json-schema.json#/definitions/AdditionalAttributeType"
},
"minItems": 0
},
"MetadataAssociations": {
"description": "This element is used to identify other services, collections, visualizations, granules, and other metadata types and resources that are associated with or dependent on the data described by the metadata. This element is also used to identify a parent metadata record if it exists. This usage should be reserved for instances where a group of metadata records are subsets that can be better represented by one parent metadata record, which describes the entire set. In some instances, a child may point to more than one parent. The EntryId is the same as the element described elsewhere in this document where it contains and ID, and Version."
,"type": "array",
"items": {
"$ref": "umm-cmn-json-schema.json#/definitions/MetadataAssociationType"
},
"minItems": 1
},
"TemporalExtents": {
"description": "This class contains attributes which describe the temporal range of a specific collection. Temporal Extent includes a specification of the Temporal Range Type of the collection, which is one of Range Date Time, Single Date Time, or Periodic Date Time",}
"type": "array",
"items": {
  "$ref": "umm-cmn-json-schema.json#/definitions/TemporalExtentType"
},
"minItems": 1
},
"PaleoTemporalCoverages": {
  "description": "For paleoclimate or geologic data, PaleoTemporalCoverage is the length of time represented by the data collected. PaleoTemporalCoverage should be used when the data spans time frames earlier than yyyy-mm-dd = 0001-01-01.",
  "type": "array",
  "items": {
    "$ref": "#definitions/PaleoTemporalCoverageType"
  },
  "minItems": 0
},
"TemporalKeywords": {
  "description": "One or more words or phrases that describe the temporal resolution of the dataset.",
  "type": "array",
  "items": {
    "$ref": "umm-cmn-json-schema.json#/definitions/KeywordStringType"
  },
  "minItems": 0
},
"SpatialExtent": {
  "$ref": "umm-cmn-json-schema.json#/definitions/SpatialExtentType"
},
"TilingIdentificationSystems": {
  "description": "Name of the two-dimensional tiling system for the collection. Previously called TwoDCoordinateSystem.",
  "type": "array",
  "items": {
    "$ref": "umm-cmn-json-schema.json#/definitions/TilingIdentificationSystemType"
  },
  "minItems": 0
},
"SpatialInformation": {
  "description": "The reference frame or system in which altitudes (elevations) are given. The information contains the datum name, distance units and encoding method, which provide the definition for the system. This field also stores the characteristics of the reference frame or system from which depths are measured. The additional information in the field is geometry reference data etc.",
  "$ref": "#definitions/SpatialInformationType"
},
"SpatialKeywords": {
  "description": "This is deprecated and will be removed. Use LocationKeywords instead. Controlled hierarchical keywords used to specify the spatial location of the collection. The controlled vocabulary for spatial keywords is maintained in the Keyword Management System (KMS). The Spatial Keyword hierarchy includes one or more of the following layers: Location_Category (e.g., Continent), Location_Type (e.g. Africa), Location_Subregion1 (e.g., Central Africa), Location_Subregion2 (e.g., Cameroon), and Location_Subregion3."
},
"LocationKeywords": {
  "description": "Controlled hierarchical keywords used to specify the spatial location of the collection. The controlled vocabulary for spatial keywords is maintained in the Keyword Management System (KMS). The Spatial Keyword hierarchy includes one or more of the following layers: Category (e.g., Continent), Type (e.g. Africa), Subregion1 (e.g., Central Africa), Subregion2 (e.g., Cameroon), and Subregion3. DetailedLocation exists outside the hierarchy.",
  "type": "array",
  "items": {
    "$ref": "#definitions/LocationKeywordType"
  },
  "minItems": 1
},
"Platforms": {
  "description": "Information about the relevant platform(s) used to acquire the data in the collection. Platform types are controlled in the Keyword Management System (KMS), and include Spacecraft, Aircraft, Vessel, Buoy, Platform, Station, Network, Human, etc.",
  "type": "array",
  "items": {
    "$ref": "umm-cmn-json-schema.json#/definitions/PlatformType"
  },
  "minItems": 1
},
"Projects": {
  "description": "The name of the scientific program, field campaign, or project from which the data were collected. This element is intended for
the non-space assets such as aircraft, ground systems, balloons, sondes, ships, etc. associated with campaigns. This element may also cover a long term project that continuously creates new data sets — like MEaSUREs from ISCCP and NVAP or CMARES from MISR. Project also includes the Campaign sub-element to support multiple campaigns under the same project.

```
"type": "array",
"items": {
  "$ref": "umm-cmn-json-schema.json#definitions/ProjectType"
},
"minItems": 1
},
"RelatedUrls": {
  "description": "This element describes any data/service related URLs that include project home pages, services, related data archives/servers, metadata extensions, direct links to online software packages, web mapping services, links to images, or other data."
},
"type": "array",
"items": {
  "$ref": "umm-cmn-json-schema.json#definitions/RelatedUrlType"
},
"minItems": 1
},
"ShortName": {
  "description": "The short name associated with the collection."
},
"$ref": "umm-cmn-json-schema.json#definitions/ShortNameType"
},
"Version": {
  "description": "The Version of the collection."
},
"$ref": "umm-cmn-json-schema.json#definitions/VersionType"
},
"VersionDescription": {
  "description": "The Version Description of the collection."
},
"$ref": "umm-cmn-json-schema.json#definitions/VersionDescriptionType"
}
}