

ANNEX F. SPECIFICATION OF PHYSICAL DOMAINS

F.1 INTRODUCTION

This annex defines the physical specification of JC3IEDM domains. Section F.2 contains a description of all the range domains, i.e., domains that are numeric in character but have some upper or lower limits. Section F.3 specifies the remaining domains that do not fall into the previous category.

F.2 Range Domains

This section lists validation rules that apply to attributes that have range domains, that is, the attributes have numeric values limited by the validation rule. The validation rules are ordered by class word. In some cases, there is only one validation rule for a class word. In other cases, multiple validation rules have been defined.

Angle

angle-mandatory

Validation Rule – Range_angle (Between 0 and 359.9999)

fan-area-orientation-angle
fan-area-sector-size-angle
polyarc-area-begin-bearing-angle
polyarc-area-end-bearing-angle

angle-optional

Validation Rule – Range_angle (Between 0 and 359.9999)

action-aircraft-employment-egress-direction-angle
action-aircraft-employment-ingress-direction-angle
action-location-bearing-angle
action-resource-employment-azimuth-fire-angle
instrument-landing-system-bearing-angle
instrument-landing-system-glide-path-angle
instrument-landing-system-magnetic-variation-angle
instrument-landing-system-slaved-variation-angle
object-item-location-bearing-accuracy-angle
object-item-location-bearing-angle
object-item-location-inclination-accuracy-angle
object-item-location-inclination-angle
slipway-gradient-angle

wind-direction-angle

wind-effective-downwind-direction-angle

Coordinate

latitude-coordinate

Validation Rule – Range_latitude (Between –90 and 90)

geographic-point-latitude-coordinate

longitude-coordinate

Validation Rule – Range_longitude (Between –180 and 180)

geographic-point-longitude-coordinate

Count

count-mandatory

action-effect-type-count

medical-facility-status-casualty-bed-occupancy-count

medical-facility-status-interval-casualty-group-completed-surgery-count

medical-facility-status-interval-casualty-group-death-count

medical-facility-status-interval-casualty-type-admitted-count

medical-facility-status-interval-casualty-type-arrival-count

medical-facility-status-interval-evacuation-count

medical-facility-status-pending-casualty-evacuation-sitting-count

medical-facility-status-pending-casualty-evacuation-stretcher-count

medical-facility-status-pending-surgery-count

object-item-group-account-detail-count

object-type-establishment-object-type-detail-count

count-optional

action-maritime-employment-number-runs-required-count

action-objective-type-imagery-product-image-scale-count

airfield-status-maximum-nbac-park-count

airfield-status-maximum-nbac-throughput-count

airfield-status-maximum-wbac-park-count

airfield-status-maximum-wbac-throughput-count

berth-maximum-vessel-count

bridge-span-count

cbrn-event-materiel-container-total-count

consumable-materiel-type-issuing-count

convoy-packet-size-count
holding-operational-count
jetty-rail-capacity-count
maintenance-capability-station-count
minefield-maritime-casualty-estimate-average-count
minefield-maritime-casualty-estimate-given-transit-count
minefield-maritime-expected-vessel-transit-count
minefield-maritime-mines-laid-count
minefield-maritime-status-mines-count
minefield-maritime-status-mines-detected-count
network-channel-count-count
network-set-number-count
quay-rail-capacity-count
railway-track-count
railway-train-density-count
road-traffic-density-count
runway-pavement-classification-number-count
vessel-type-propeller-count

Datetime

datetime-mandatory

action-context-status-effective-datetime
context-association-status-effective-datetime
context-element-status-effective-datetime
context-object-item-association-status-effective-datetime
network-frequency-effective-start-datetime
object-item-object-type-establishment-effective-datetime
object-type-establishment-effective-datetime
operational-information-group-organisation-association-status-effective-datetime
operational-information-group-plan-order-content-datetime
order-status-datetime
organisation-materiel-type-association-reportable-type-datetime
organisation-plan-order-association-status-datetime
plan-order-association-datetime
plan-order-component-content-datetime
plan-order-component-structure-datetime

plan-order-distribution-acknowledgement-datetime

plan-order-header-content-datetime

plan-status-datetime

reporting-data-reporting-datetime

datetime-optional

action-objective-item-marking-start-datetime

action-task-planned-end-datetime

action-task-planned-start-datetime

light-down-datetime

light-up-datetime

minefield-destruction-datetime

network-frequency-effective-end-datetime

organisation-action-association-effective-datetime

organisation-action-task-rule-of-engagement-status-effective-end-datetime

organisation-action-task-rule-of-engagement-status-effective-start-datetime

organisation-reference-association-start-datetime

person-birth-datetime

plan-order-component-content-reference-datetime

plan-order-distribution-release-datetime

reference-approval-datetime

reference-creation-datetime

reference-publication-datetime

reference-validity-period-begin-datetime

reference-validity-period-end-datetime

reporting-data-absolute-timing-effective-end-datetime

reporting-data-absolute-timing-effective-start-datetime

request-latest-answer-datetime

Dimension

dimension-mandatory

cartesian-point-x-coordinate-dimension

cartesian-point-y-coordinate-dimension

corridor-area-width-dimension

engineering-capability-facility-height-dimension
engineering-capability-facility-length-dimension
engineering-capability-facility-width-dimension
fan-area-minimum-range-dimension
orbit-area-width-dimension
polyarc-area-arc-radius-dimension
relative-point-x-coordinate-dimension
relative-point-y-coordinate-dimension
sphere-volume-radius-dimension
track-area-left-width-dimension
track-area-right-width-dimension
vertical-distance-dimension
visibility-range-dimension

dimension-optional

action-location-accuracy-dimension
action-maritime-employment-swept-lane-actuation-width-dimension
action-maritime-employment-group-vessel-transit-longitudinal-spacing-dimension
action-maritime-employment-vessel-transit-longitudinal-spacing-dimension
aircraft-type-wing-span-dimension
anchorage-draught-high-tide-dimension
anchorage-draught-low-tide-dimension
basin-depth-dimension
berth-depth-dimension
berth-maximum-beam-dimension
bridge-longest-span-length-dimension
cartesian-point-z-coordinate-dimension
chemical-biological-event-release-height-dimension
cloud-cover-base-dimension
cloud-cover-top-dimension
convoy-day-vehicle-gap-dimension
convoy-night-vehicle-gap-dimension
convoy-packet-gap-dimension
dry-dock-depth-dimension

equipment-type-maximum-height-dimension
equipment-type-maximum-length-dimension
equipment-type-maximum-width-dimension
facility-height-dimension
facility-length-dimension
facility-width-dimension
fan-area-maximum-range-dimension
harbour-approach-channel-depth-dimension
harbour-maximum-vessel-draught-dimension
harbour-maximum-vessel-length-dimension
harbour-maximum-vessel-width-dimension
harbour-tidal-mean-neap-range-dimension
harbour-tidal-mean-spring-range-dimension
instrument-landing-system-beam-width-dimension
instrument-landing-system-distance-measuring-equipment-distance-dimension
instrument-landing-system-localiser-distance-dimension
instrument-landing-system-threshold-crossing-height-dimension
jetty-maximum-draught-dimension
jetty-vessel-maximum-beam-dimension
materiel-type-issuing-height-dimension
materiel-type-issuing-length-dimension
materiel-type-issuing-width-dimension
minefield-mine-spacing-dimension
nuclear-weapon-event-crater-width-dimension
object-item-location-horizontal-accuracy-dimension
object-item-location-vertical-accuracy-dimension
quay-container-maximum-handling-length-dimension
quay-draught-dimension
quay-vessel-maximum-beam-dimension
railcar-type-gauge-dimension
railway-block-distance-dimension
railway-sleeper-density-dimension
relative-point-z-coordinate-dimension

runway-approach-direction-association-landing-distance-dimension

runway-approach-direction-association-takeoff-distance-dimension

vessel-type-draught-dimension

vessel-type-height-above-the-waterline-dimension

Duration

duration-mandatory

medical-facility-status-surgery-backlog-duration

reporting-data-relative-timing-offset-duration

duration-optional

action-task-estimated-duration

action-task-maximum-duration

action-task-minimum-duration

action-temporal-association-reference-duration

berth-turnaround-time-duration

convoy-halt-duration

minefield-maritime-life-duration

minefield-maritime-sustained-threat-measure-of-effectiveness-planned-duration

nuclear-weapon-event-flash-to-bang-duration

organisation-status-readiness-duration

target-persistence-duration

Ordinal

ordinal-mandatory

line-point-sequence-ordinal

ordinal-optional

candidate-target-detail-authorisation-priority-ordinal

candidate-target-detail-priority-ordinal

candidate-target-list-authorisation-priority-ordinal

plan-order-component-content-sequence-ordinal

Quantity

quantity-mandatory

holding-transfer-quantity

quantity-optional

action-objective-type-quantity
action-required-capability-quantity
action-resource-type-quantity
airfield-hangar-area-quantity
anchorage-day-limit-net-explosive-quantity
anchorage-night-limit-net-explosive-quantity
anchorage-vessel-tonnage-quantity
apron-weight-bearing-capacity-quantity
atmosphere-pressure-quantity
basin-deadweight-tonnage-quantity
berth-day-limit-net-explosive-quantity
berth-deadweight-tonnage-quantity
berth-maximum-capacity-quantity
berth-night-limit-net-explosive-quantity
chemical-biological-event-atmospheric-particle-concentration-quantity
chemical-biological-event-mass-fraction-concentration-quantity
chemical-biological-event-surface-deposition-quantity
chemical-biological-event-volume-concentration-quantity
consumable-materiel-type-issuing-weight-quantity
dry-dock-boat-lift-capacity-quantity
equipment-type-fuel-capacity-quantity
equipment-type-loaded-weight-quantity
equipment-type-unloaded-weight-quantity
geographic-feature-bottom-penetration-quantity
harbour-day-limit-net-explosive-quantity
harbour-night-limit-net-explosive-quantity
holding-on-hand-quantity
holding-required-on-hand-quantity
holding-required-total-quantity
holding-total-quantity
jetty-day-limit-net-explosive-quantity
jetty-maximum-deadweight-tonnage-quantity
jetty-night-limit-net-explosive-quantity
liquid-body-status-thermal-layer-depth-quantity
liquid-body-status-underwater-visibility-quantity
minefield-maritime-status-mines-detected-quantity

minefield-maritime-status-swept-depth-quantity
network-frequency-band-lower-frequency-quantity
network-frequency-band-upper-frequency-quantity
network-frequency-discrete-frequency-quantity
nuclear-weapon-event-yield-quantity
object-item-capability-quantity
object-type-capability-norm-quantity
organisation-status-radiation-dose-quantity
person-status-radiation-dose-quantity
quay-container-maximum-handling-weight-quantity
quay-crane-offloading-lift-quantity
quay-day-limit-net-explosive-quantity
quay-maximum-deadweight-tonnage-quantity
quay-night-limit-net-explosive-quantity
radioactive-event-dose-quantity
radioactive-event-surface-deposition-quantity
radioactive-event-volume-concentration-quantity
railway-gross-trailing-load-quantity
reference-file-size-quantity
runway-weight-bearing-capacity-quantity
subsurface-vessel-type-dived-displacement-quantity
subsurface-vessel-type-speed-cavitation-quantity
surface-vessel-type-displacement-quantity
surface-vessel-type-maximum-deck-load-quantity
vessel-type-acoustic-merit-index-quantity
vessel-type-dead-weight-quantity
vessel-type-gross-registered-tonnage-quantity
vessel-type-magnetic-degaussing-code-number-quantity
vessel-type-operational-displacement-quantity

Rate

rate-mandatory

rate-optional

action-maritime-employment-vessel-transit-recommended-speed-rate
air-route-segment-maintained-speed-rate
convoy-day-speed-rate

convoy-night-speed-rate
harbour-prevailing-wind-maximum-speed-rate
harbour-mean-tidal-current-rate
liquid-body-status-bottom-current-rate
liquid-body-status-tidal-stream-rate
network-maximum-capacity-rate
network-minimum-capacity-rate
object-item-location-speed-rate
object-item-location-speed-accuracy-rate
precipitation-rate
radioactive-event-dose-rate
railway-maximum-speed-rate
vessel-type-maximum-speed-rate
wind-speed-rate

Ratio

ratio-mandatory

action-effect-item-ratio

ratio-optional

action-event-status-completion-ratio
action-resource-type-apportionment-ratio
action-task-status-completion-ratio
atmosphere-humidity-ratio
cloud-cover-light-refraction-ratio
meteorologic-feature-probability-ratio
mine-status-mine-buried-ratio
minefield-maritime-detection-probability-ratio
minefield-maritime-mmoe-initial-threat-probability-ratio
minefield-maritime-status-threat-ratio
minefield-maritime-sustained-threat-measure-of-effectiveness-probability-ratio
radiological-event-isotope-concentration-ratio
runway-approach-direction-association-slope-ratio
vessel-type-prismatic-coefficient-ratio

Temperature

Validation Rule – Range_temperature (-273.1)

atmosphere-temperature

F.3 Other Domains

This section covers domains for attributes having class words id, index, and text. The domains are identified below.

Id

Domain – identifier_20

- action-id
 - action-event-id
 - cbrn-event-id
 - chemical-biological-event-id
 - radioactive-event-id
 - nuclear-event-id
 - nuclear-weapon-event-id
 - radiological-event-id
 - action-functional-association-object-action-id
 - action-functional-association-subject-action-id
 - action-objective-task-action-task-id
 - action-task-id
 - reporting-data-relative-timing-reference-action-task-id
 - request-id
 - action-temporal-association-object-action-id
 - action-temporal-association-subject-action-id
- address-id
- affiliation-id
- candidate-target-list-id
 - candidate-target-detail-association-object-candidate-target-list-id
 - candidate-target-detail-association-subject-candidate-target-list-id
 - candidate-target-list-association-object-candidate-target-list-id
 - candidate-target-list-association-subject-candidate-target-list-id
- capability-id
 - engineering-capability-id
 - fire-capability-id
 - handling-capability-id
 - maintenance-capability-id
 - mobility-capability-id
 - operational-capability-id
 - storage-capability-id
 - support-capability-id
 - surveillance-capability-id
 - transmission-capability-id
- component-header-content-id
- component-text-content-id
- context-id
 - context-association-object-context-id
 - context-association-subject-context-id
 - operational-information-group-id
 - plan-order-component-content-data-context-id
- group-characteristic-id
- location-id
 - geometric-volume-id
 - cone-volume-id
 - sphere-volume-id
 - surface-volume-id
 - line-id
 - corridor-area-centre-line-id
 - polyarc-area-defining-line-id
 - polygon-area-bounding-line-id
 - object-reference-location-id
- point-id
 - absolute-point-id
 - cartesian-point-id

- geographic-point-id
- cone-volume-vertex-point-id
- ellipse-centre-point-id
- ellipse-first-conjugate-diameter-point-id
- ellipse-second-conjugate-diameter-point-id
- fan-area-vertex-point-id
- line-point-point-id
- orbit-area-first-point-id
- orbit-area-second-point-id
- point-reference-origin-point-id
- point-reference-x-vector-point-id
- point-reference-y-vector-point-id
- polyarc-area-bearing-origin-point-id
- relative-point-id
- sphere-volume-centre-point-id
- track-area-begin-point-id
- track-area-end-point-id
- surface-id
 - cone-volume-defining-surface-id
 - corridor-area-id
 - ellipse-id
 - fan-area-id
 - orbit-area-id
 - polyarc-area-id
 - polygon-area-id
 - surface-volume-defining-surface-id
 - track-area-id
- object-item-id
 - control-feature-status-id
 - facility-id
 - airfield-id
 - anchorage-id
 - apron-id
 - basin-id
 - berth-id
 - bridge-id
 - dry-dock-id
 - harbour-id
 - jetty-id
 - medical-facility-status-id
 - military-obstacle-id
 - minefield-id
 - minefield-land-id
 - minefield-maritime-id
 - network-id
 - quay-id
 - railway-id
 - road-id
 - runway-id
 - slipway-id
- facility-status-id
 - airfield-status-id
 - medical-facility-status-id
 - minefield-maritime-status-id
- feature-id
 - control-feature-id
 - airspace-control-means-id
 - approach-direction-id
 - route-id
 - route-segment-id
 - air-route-segment-id
 - geographic-feature-id
 - meteorologic-feature-id
 - atmosphere-id
 - cloud-cover-id
 - icing-id
 - light-id
 - precipitation-id
 - visibility-id
 - wind-id
- geographic-feature-status-id
 - liquid-body-status-id
 - liquid-surface-status-id
 - solid-surface-status-id
- holding-transfer-corresponding-object-item-id

- materiel-id
 - instrument-landing-system-id
- materiel-status-id
 - mine-status-id
 - uxo-status-id
- object-item-association-object-object-item-id
- object-item-association-subject-object-item-id
- object-reference-object-item-id
- organisation-id
 - action-context-status-establishing-organisation-id
 - action-objective-authorising-organisation-id
 - action-objective-item-marking-using-organisation-id
 - action-resource-authorising-organisation-id
 - context-association-status-establishing-organisation-id
 - context-element-status-establishing-organisation-id
 - context-object-item-association-status-establishing-organisation-id
 - convoy-id
 - establishing-organisation-id
 - operational-information-group-organisation-association-status-establishing-organisation-id
 - organisation-action-task-rule-of-engagement-status-organisation-id
 - organisation-structure-root-organisation-id
 - owning-organisation-id
 - recipient-organisation-id
 - reporting-data-reporting-organisation-id
 - unit-id
- organisation-status-id
- person-id
- person-status-id
- object-type-id
 - established-object-type-id
 - facility-type-id
 - airfield-type-id
 - bridge-type-id
 - facility-major-building-type-id
 - harbour-type-id
 - military-obstacle-type-id
 - feature-type-id
 - control-feature-type-id
 - route-type-id
 - geographic-feature-type-id
- materiel-type-id
 - consumable-materiel-type-id
 - ammunition-type-id
 - biological-materiel-type-id
 - chemical-materiel-type-id
 - radioactive-materiel-type-id
 - equipment-type-id
 - aircraft-type-id
 - cbrn-equipment-type-id
 - electronic-equipment-type-id
 - engineering-equipment-type-id
 - maritime-equipment-type-id
 - miscellaneous-equipment-type-id
 - railcar-type-id
 - unit-type-principal-equipment-type-id
 - vehicle-type-id
 - vessel-type-id
 - subsurface-vessel-type-id
 - surface-vessel-type-id
 - weapon-type-id
- object-type-establishment-object-type-detail-object-type-id
- organisation-type-id
 - civilian-post-type-id
 - government-organisation-type-id
 - military-organisation-type-id
 - executive-military-organisation-type-id
 - military-post-type-id
 - task-formation-type-id
 - unit-type-id
 - unit-type-supported-military-organisation-type-id
 - group-organisation-type-id
 - private-sector-organisation-type-id
- person-type-id
- reference-id

- reference-association-object-reference-id
- reference-association-subject-reference-id
- plan-order-id
 - order-id
 - plan-id
 - plan-order-association-subject-plan-order-id
 - plan-order-association-object-plan-order-id
 - plan-order-component-structure-object-plan-order-id
 - plan-order-component-structure-subject-plan-order-id
- relative-coordinate-system-id
- reporting-data-id
 - comprising-reporting-data-id
 - reporting-data-absolute-timing-reporting-data-id
 - reporting-data-relative-timing-reporting-data-id
- rule-of-engagement-id
- security-classification-id
- vertical-distance-id
 - absolute-point-vertical-distance-id
 - geometric-volume-lower-vertical-distance-id
 - geometric-volume-upper-vertical-distance-id

Index

Domain – index (20)

- action-context-index
- action-context-status-index
- action-effect-index
- action-event-detail-index
- action-event-status-index
- action-functional-association-index
- action-location-index
- action-objective-index
- action-objective-item-marking-index
- action-resource-index
- action-resource-employment-index
- action-task-status-index
- action-temporal-association-index
- candidate-target-detail-authorisation-index
- candidate-target-detail-index
 - candidate-target-detail-association-object-candidate-target-detail-index
 - candidate-target-detail-association-subject-candidate-target-detail-index
 - candidate-target-detail-item-index
 - candidate-target-detail-type-index
- candidate-target-list-authorisation-index
- context-assessment-index
- context-association-status-index
- context-element-index
- context-element-status-index
- context-object-item-association-status-index
- holding-index
- holding-transfer-index
- line-point-index
- medical-facility-status-casualty-bed-occupancy-index
- medical-facility-status-interval-casualty-group-index
- medical-facility-status-interval-casualty-type-index
- medical-facility-status-interval-evacuation-index
- medical-facility-status-pending-casualty-evacuation-index
- medical-facility-status-pending-surgery-index
- minefield-maritime-casualty-estimate-index
- minefield-maritime-sustained-threat-measure-of-effectiveness-index
- network-capacity-index
- network-frequency-index
- network-service-index
- network-service-status-index
- object-item-address-index
- object-item-affiliation-index
- object-item-alias-index
- object-item-association-index
- object-item-association-status-index
- object-item-capability-index
- object-item-group-account-detail-index
- object-item-group-account-index

object-item-hostility-status-index
object-item-location-index
object-item-object-type-establishment-index
object-item-reference-association-index
object-item-status-index
object-item-type-index
object-reference-object-item-location-index
object-type-establishment-detail-object-type-establishment-index
object-type-establishment-index
object-type-establishment-object-type-detail-index
operational-information-group-organisation-association-index
operational-information-group-organisation-association-status-index
operational-information-group-plan-order-content-index
order-status-index
organisation-action-association-index
organisation-action-task-rule-of-engagement-status-index
organisation-plan-order-association-index
organisation-plan-order-association-status-index
organisation-reference-association-index
organisation-structure-detail-index
organisation-structure-index
person-identification-document-index
person-language-skill-index
plan-order-association-index
plan-order-component-content-index
plan-order-component-content-reference-index
plan-order-component-index
plan-order-component-structure-index
plan-order-component-structure-object-plan-order-component-index
plan-order-component-structure-subject-plan-order-component-index
plan-order-distribution-acknowledgement-index
plan-order-distribution-index
plan-order-header-content-index
plan-status-index
reference-association-index
request-answer-index

Text

text-mandatory

affiliation-functional-group-name-text
approach-direction-angle-text
component-header-content-topic-heading-text
component-text-content-text
context-assessment-text
object-item-name-text
object-type-name-text
organisation-materiel-type-association-reportable-type-text
person-identification-document-number-text
rule-of-engagement-description-text
unit-formal-abbreviated-name-text

text-optional

action-event-detail-text
action-maritime-employment-lead-vessel-name-text

action-name-text
action-objective-item-marking-laser-correlation-code-text
action-objective-type-priority-text
action-reference-association-part-text
action-task-detail-text
address-place-name-text
air-route-segment-description-text
airfield-international-civil-aviation-organisation-text
airspace-control-means-transit-instruction-text
ammunition-type-calibre-text
basin-location-text
berth-location-text
candidate-target-detail-label-text
candidate-target-list-name-text
context-name-text
dry-dock-location-text
electronic-address-name-text
facility-base-identification-code-text
harbour-entrance-restrictions-text
harbour-refuelling-location-text
harbour-seasonal-detail-text
harbour-tidal-text
materiel-hull-number-text
materiel-lot-identification-text
materiel-mine-requisition-case-number-text
materiel-serial-number-identification-text
materiel-type-reportable-item-text
materiel-type-stock-number-text
minefield-identification-text
minefield-maritime-mine-detailed-text
network-frequency-channel-number-text
network-frequency-purpose-text
network-service-cryptographic-code-short-title-text
network-service-cryptographic-plan-short-title-text
network-service-iff-mode-code-text
object-item-address-call-sign-text
object-item-alias-name-text

object-item-group-account-name-text
object-item-reference-association-specific-part-text
object-type-establishment-name-text
organisation-action-association-intent-text
organisation-structure-name-text
organisation-type-description-text
physical-address-city-text
physical-address-geographic-text
physical-address-postal-box-text
physical-address-postal-code-text
physical-address-postbox-identifier-text
physical-address-residence-text
physical-address-street-additional-text
physical-address-street-text
plan-order-header-content-name-text
plan-order-header-content-nickname-text
plan-order-header-content-serial-number-text
plan-order-header-content-sponsor-type-text
plan-order-header-content-message-reference-number-text
reference-description-text
reference-electronic-source-text
reference-format-text
reference-originator-text
reference-physical-size-text
reference-primary-location-text
reference-releasability-text
reference-short-title-text
reference-title-text
reference-version-text
rule-of-engagement-name-text
security-classification-caveat-text
security-classification-policy-text
slipway-location-text
target-description-text
target-identifier-text
unit-identification-text
vertical-distance-datum-text

weapon-type-calibre-text