2 November 2026

# Summary of the differences between the 2025/1 and 2027/1 editions of the ES-RIS

## 1. Amendments that do not affect the content

This first part gathers the amendments that do not, in themselves, change the requirements of the standard. The substantive changes are described in the technology-specific parts below.

### 1.1 New definitions and terminology

Two new concepts have been introduced in Part 0, each with an abbreviation and a full definition:

- the TGAIN (Track Guidance Assistant for Inland Navigation) that automatically steers the vessel along a track to follow.
- the collision risk detection, which uses sensors, navigation data and predictive algorithms to identify and assess the likelihood of the own vessel coming into unsafe proximity with another vessel, structure or obstacle, or risk a collision with them.

Both underpin the new Inland ECDIS functions described in Parts I and V.

In addition, in the English version, the term “shipmaster” has been removed and consolidated into the single term “boatmaster”, which is now used throughout the standard.

### 1.2 Editorial and terminological amendments

As with every edition of ES-RIS, the Secretariat has carried out a thorough proofreading in the four languages in order to detect and correct errors and to harmonise terminology, for example “blue sign” and “blue panel” become “blue board”, “AIS base station” becomes “AIS shore station”, and “test procedure” becomes “test method”.

### 1.3 Normative references

The list of external references in Part 0 has been reduced from 69 to 58. Twelve references, mostly maritime, AIS or GNSS standards that are no longer cited (IMO, ITU-R, RTCM, SOLAS, etc.), have been removed, and ISO 3166-3 (country names) has been added for Part IV.

### 1.4 Renumbering of articles

A significant renumbering of articles has been carried out in the Inland ECDIS parts (Parts I and V) in order to accommodate the many new articles related to the ASM test standard and to the TGAIN and collision-risk-detection modules.

## 2. Amendments to specifications pertaining to the electronic chart display and information system for inland navigation (Inland ECDIS)

The most significant additions in ES-RIS 2027/1 concern the Inland ECDIS part with the integration of the tests for the visualisation of Application Specific Messages (ASM), and the integration of two new optional connected modules: the TGAIN and the collision-risk-detection module (visualization aspects only).

### 2.1 Amendments to Part I relative to ES-RIS 2027/1

#### 2.1.1 New modules: TGAIN and collision risk detection

A new Article 2.03(17) defines how a TGAIN connected to an Inland ECDIS device is displayed on it: the planned track (blue) and the track to follow (orange), a minimum displayed track length of 2000 m, and three operational statuses (Not ready = grey, Ready = blue, Activated = green).

A new Article 2.03(18) defines the display of a connected collision-risk-detection module: on/off status, the detection range, the marking of expected impact points and the highlighting of the objects concerned for both static and dynamic risks, and an over-radar indication in navigation mode.

Article 2.06 has been reorganised and gains two new hardware sub-articles: 2.06(8) for the TGAIN (screen-size rules, portrait head-up display, a separate radar control panel) and 2.06(9) for the collision-risk-detection module.

Article 2.08 (warnings and alarm indicators) has been extended so that both new modules are bound into the safety-alarm framework: at least a generic warning and a generic alarm for each module, missing-signal indicators, and an expanded list of mandatory alarm situations (including “missing TGAIN signal” and “missing collision risk detection signal”).

#### 2.1.2 Radar integration

Article 2.03(8) adds six new requirements (items xiv to xix) that tighten the radar/Inland ECDIS interface: automatic range switching when the connected radar changes pulse length, range bounds when the video sampling frequency is not controllable, an indicator marking the limits of the radar picture when the chart extends beyond the radar range, and a rule that the key radar functions (Gain, STC, FTC[1], etc.) act only once in the signal path and remain controllable from the Inland ECDIS.

[1] STC (Sensitivity Time Control) and FTC (Fast Time Constant) are radar signal-processing controls used to suppress unwanted echoes: STC reduces sea clutter at short range, while FTC reduces rain (precipitation) clutter.

### 2.1.3 Other amendments (task TI-1)

A new Article 2.12 requires that the current editions of the presentation library and the feature catalogue be made accessible to the user and to the inspection authorities (for example through a menu), which is useful for edition checking, in particular during a police control.

Article 2.04(6): new rules ensure that the user's own chart entries are distinguishable from SENC[2]/ENC[3] data, including when they represent an Aid to Navigation;

Article 2.04(7): range selection by other means (e.g. with a mouse pointer) is now permitted, in addition to the successive switchable ranges;

Article 2.05: "service functions" are now defined and simply "shall not be selectable" where they would affect navigation mode;

Article 2.06(3): the 270 × 270 mm minimum area in navigation mode now refers to the radar display area (previously the chart display area).

## 2.2 Amendments to Part V relative to ES-RIS 2027/1

Part V (the Inland ECDIS test standard) has been substantially expanded. The note in ES-RIS 2025/1 stating that the ASM were "not yet" tested has been removed, and full new test suites have been added.

### 2.2.1 ASM tests

New articles 5.12 to 5.22 (with their navigation-mode mirrors 7.11 to 7.20) provide the test method and required results for the ten ASM (control message, convoy message, inland capability interrogation reply, ETA and RTA at lock/bridge, present bridge clearance, water level, signal station, geographic notice and ISRS text message). Article 5.21, in particular, adds 31 requirements testing every possible shape of a geographic notice (circle, rectangle, sector, polyline, polygon, associated text).

Seven new test IENCs (charts 11 to 17) have been added to support these ASM tests.

### 2.2.2 TGAIN and collision-risk tests

New vessel-based test articles have been added for the TGAIN (Articles 5.23–5.25, 5.42, 5.45, 6.04, 7.21) and for the collision-risk-detection module (Articles 5.26–5.30, 5.46, 7.22), together with a new standard test setup (Article 4.02(6)) for a module tested aboard a vessel.

A new Article 7.35 requires a separate radar control panel compliant with the newly referenced standard EN 303 676;

Chapter 9 has been amended to accommodate with changes mentioned above, in particular regarding Articles 2.03(16), 2.03(17) and 2.03(18).

[2] SENC (System Electronic Navigational Chart): the internal database that the Inland ECDIS builds from the ENC once loaded (converted to the system format, updates included), which is actually used for display and calculations.

[3] ENC (Electronic Navigational Chart): the official vector chart database issued by the competent authority — in inland navigation, the Inland ENC (IENC).

### 2.2.3 Other amendments

New article 5.49 tests that the Inland ECDIS can display the current editions of the presentation library and feature catalogue (mirroring Part I, Article 2.12);

The standalone test “Accuracy of rate of turn indicators” (former article 7.24) has been removed and folded into a new on-vessel test in article 7.37 checking chart/radar orientation deviation and ROT deviation (< ±3°).

## 2.3 Amendments to annexes 1 to 8

There is no substantive change to Annexes 1 to 8 (only repagination and minor formatting).

## 3. Amendments to specifications pertaining to the Vessel Tracking and Tracing for inland navigation (VTT)

### 3.1 Amendments to Parts II and VI relative to ES-RIS 2027/1

The VTT-related parts contain very few substantive changes; the amendments are mostly editorial (harmonisation to “boatmaster” and “AIS shore station”, “blue panel”), and Part VI has been retitled from “Inland AIS equipment…” to “Inland AIS stations…” to harmonize the terminology used in ES-RIS.

One clarification has been made: in Part II (Article 3.05) and in Annex 15, the word “Optional” has been deleted from the heading covering the Application Specific Messages sent from an Inland AIS shore station. The word was ambiguous as it did not mean that implementing these ASMs is optional, but that their transmission is initiated by an external application connected to the AIS shore station. Deleting it removes the ambiguity without changing the substance.

### 3.2 Amendments to annexes 9 to 18

Annexes 9 to 14 are unchanged in substance. In Annex 15 (Inland AIS messages), apart from the removal of the word “Optional” noted above, a few technical corrections have been made: the ETA message identifier is corrected from “*AIS Message 8*” to “*AIS Message 6*”; the present-bridge-clearance message version is bumped from 1 to 2 (its validity is now expressed as “measurements older than one hour are not shown”); a signal-station status code is corrected (Port = 4); and the geographic-notice associated-text trigger value is changed from 127 to 125.

## 4. Amendments to specifications pertaining to the Notices to Skippers (NtS)

### 4.1 Amendments to Part III relative to ES-RIS 2027/1

There is no modification to the main text of Part III. Only annexes referred to in Part III are modified.

### 4.2 Amendments to the encoding guides (annexes 28 and 29)

A new “area of impact” feature has been introduced for fairway and traffic related messages (FTM): a message can now declare an overall area of impact, for example for a strike, ice conditions or new legislation affecting many objects, with its own data elements (identifier, area name, list of impacted object types, geometry and centre coordinate). An important safeguard is that a receiving system must not derive the affected objects from the area: every affected waterway section and object must still be listed individually; the area is used only for map visualisation and for generating the message title.

The detailed “geographic_impact” element has been re-scoped from the message level to the individual limitation level (it now describes the area to which a given limitation applies);

Two new reason codes have been added: “weather conditions” and “exceptional strong currents”;

A new object type “marina” (MRA) has been added;

FTM messages: a new duty to “listen to a specific VHF channel” has been added (Annex 28, §5.8.1), with a corresponding new reporting code “duty to listen”;

### 4.3 Amendments to the reference tables (annex 32, appendix 1)

The Ukrainian language (UK) has been added to all NtS code tables as a new column placed after Serbian, at the request of the Ukrainian delegation.

Five obsolete code tables have been removed: “Ice accessibility”, “Ice classification”, “Ice condition”, “Ice situation” and “Interval”. Some of them were legacy ice-coding tables that were no longer used. This continues the phasing-out of the standalone ice message that was carried out in ES-RIS 2025/1.

Nine new entries have been added to the Reference code table, all vertical or water-level reference systems (Baltic Sea, Black Sea/Constanța, maritime level of Le Havre, German height system, EVRF2000, EVRF2007, mean high water, normative high-water level, general levelling of France);

Removed codes: the reason codes “others” and “Info service”, the target-group codes “non navigating users” and “worksite crafts”, and the subject code “Notice withdrawn”.

In addition, a number of inconsistencies observed in the already-adopted ES-RIS 2025/1 (mainly NtS code translations in Annex 32, and an error in Annex 29) have been addressed.

# 5. Amendments to specifications pertaining to Electronic ship reporting in inland navigation (ERI)

## 5.1 Amendments to Part IV relative to ES-RIS 2027/1

There is no modification to the main text of Part IV, except one entry in the list of applicable codes and references: reference code 14 has been renamed from “Terminal code” to “Object code”, broadening the referenced set from terminals to objects. All other ERI-related modifications are located in Annexes 19 to 27 referred to in Part IV.

## 5.2 Amendments to annexes 19 to 27

### 5.2.1 Annex 19 (Common data definitions)

The message-identification model has been reworked away from the historical UN/EDIFACT framework. “Message Type” (MESSTYP) is replaced by a lean “Message Context” (MESSCTX: message name, controlling agency, defaulting to CESNI, and message version), and “Message Information” (MESSINFO) becomes “Message Header” (MESSHEADER), with the Common Denominator now mandatory (except for ERIRSP). All the version numbers of the ERI messages have been updated to “1.5”.

The transport-details data type (TDET) has been restructured: it gains a new mandatory “Issuing Authority ENI” and a new optional “vessel’s equipment standard” (S1/S2 per ES-TRIN), the vessel’s nationality becomes mandatory, and the name fields are enlarged to 70 characters; the “Stage Qualifier” field and the entire “Transport reference” (TREF) sub-type are removed.

- VESSID: the MMSI changes from a numeric type to text (9), so leading zeros are preserved;
- LOCID: the location name becomes mandatory and “Terminal Code” is replaced by “Object Code”;
- TDIM: the draught becomes optional and the former “9999” placeholder rule is removed;
- BARGINFO gains the previous vessel name, a passenger capacity and a persons-on-board capacity;
- DGOODS gains a “Technical Name” field and a widened proper-shipping-name;
- Gross Weight becomes mandatory (in the stowage-vessel and per-container distribution tables);
- a new “Software ID” (SOFTID) data type allows a message to declare the sending software and version;
- a new optional “Experiment Field” is added to CONSI (Consignment), that can be used for interested authorities (for example in the context of eFTI) and ignored by others.

### 5.2.2 Annex 20 (ERINOT)

- The message now carries the new MESSHEADER/MESSCTX header (ERI 1.5, CESNI);
- the generating and pre-generating software (SOFTID) are indicated;
- the number of passengers (“Pax”) becomes mandatory.

### 5.2.3 new format of Annex 21 (PAXLST)

PAXLST has been fully migrated from UN/EDIFACT to the XML/data-type model, and UN/EDIFACT is no longer supported for this message. It also gains richer per-person content: crew qualification codes, Schengen visa types, and structured crew remarks and effects.

### 5.2.4 new format of Annex 22 (ERIRSP)

ERIRSP has likewise been fully migrated from UN/EDIFACT (APERAK) to the XML/data-type model. A new “Accepted with warnings” response and non-blocking warning information have been added, together with new error codes (for example ETD/ETA too far in the past or future, or an invalid emergency phone or VAT number).

### 5.2.5 Annexes 23 (BERMAN) and 24 (ERIVOY)

These annexes are essentially unchanged. BERMAN remains in UN/EDIFACT format. ERIVOY is already in XML format, but it is not yet described using the uniform data-type structure now applied to ERINOT, PAXLST and ERIRSP; aligning it with that structure is envisaged for ES-RIS 2029/1.

## 6. Clarifications on ES-RIS 2027/1

The clarifications below concern points of ES-RIS 2027/1 that would benefit from clarification; some of them could be integrated into a future edition of ES-RIS.

### 6.1 Clarifications on the Inland ECDIS parts

#### 6.1.1 Article 5.13

In the (o) requirements, it is requested that the AIS ASM protocol simulator shall simulate an AIS message 1 (position report) for the given vessel (MMSI) with no heading information.

In order to perform the full test, the AIS ASM protocol simulator should also simulate AIS message 5 (with A, B, C, D values) for the same given vessel.

#### 6.1.2 Article 5.14

In the (h) requirement, it is requested that the list shall contain graphical examples, but it does not contain an exhaustive list.

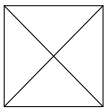
As a basis of comparison to seek for compliance, you can use the list provided in Appendix.

### 6.2 Clarifications on the VTT parts

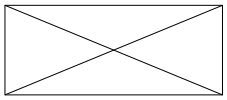
#### 6.2.1 Annex 15, Table 15-6

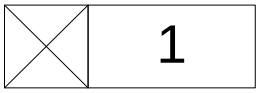
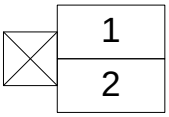
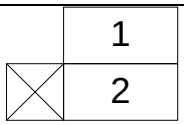
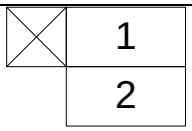
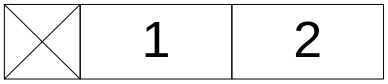
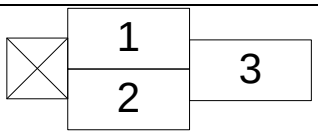
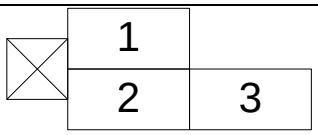
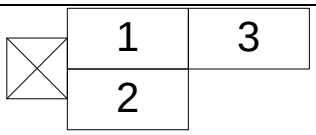
The table 15-1 does not show which message can be controlled by a control message. It should be clarified that FI-11 message can be controlled by a control message.

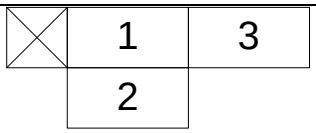
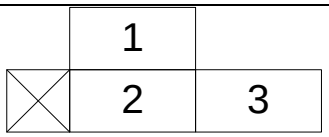
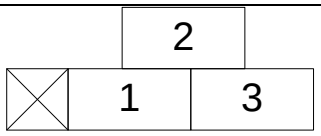
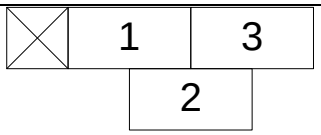
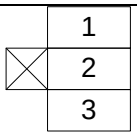
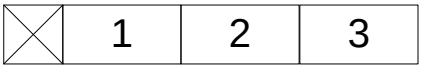
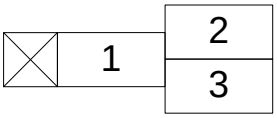
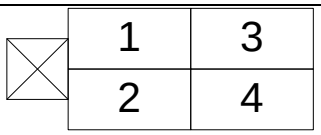
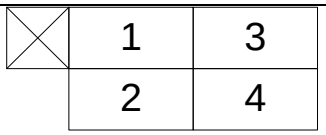
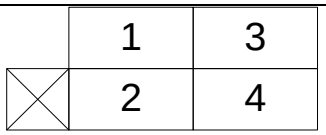
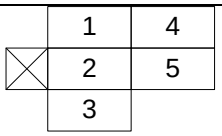
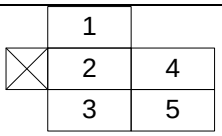
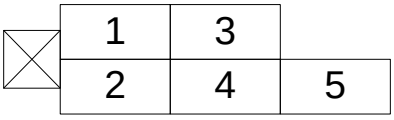
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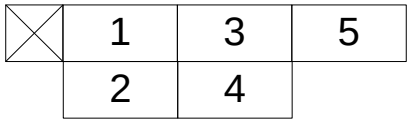
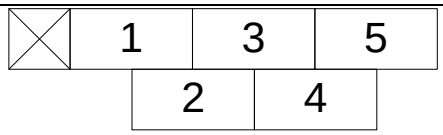
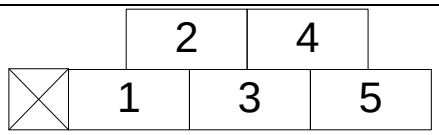
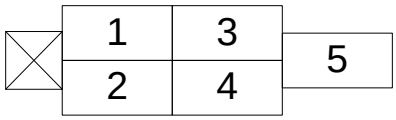
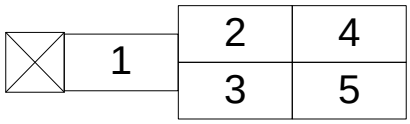
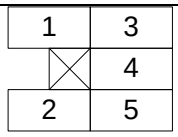
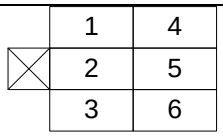
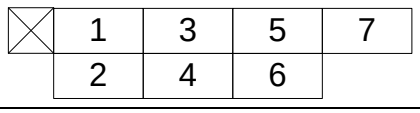
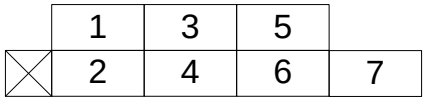
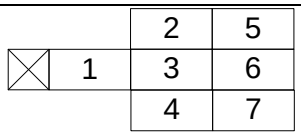
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| 2 | 000000010 | 0 | 2 | unknown shape | 8220; 8320 | 79; 80 |
| 3 | 000000011 | 0 | 3 | unknown shape | 8230; 8330 | 79; 80 |
| 4 | 000000100 | 0 | 4 | unknown shape | 8240; 8340 | 79; 80 |
| 5 | 000000101 | 0 | 5 | unknown shape | 8250; 8350 | 79; 80 |
| 6 | 000000110 | 0 | 6 | unknown shape | 8260; 8360 | 79; 80 |
| 7 | 000000111 | 0 | 7 | unknown shape | 8270; 8370 | 79; 80 |
| 8 | 000001000 | 0 | 8 | unknown shape | 8280; 8380 | 79; 80 |
| 9 | 000001001 | 0 | 9 | unknown shape | 8290; 8390 | 79; 80 |
| 10 | 000001010 | 0 | 10 | unknown shape | 8290; 8390 | 79; 80 |
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| 12 | 000001100 | 0 | 12 | reserved | 8290; 8390 | 79; 80 |
| 13 | 000001101 | 0 | 13 | reserved | 8290; 8390 | 79; 80 |
| 14 | 000001110 | 0 | 14 | reserved | 8290; 8390 | 79; 80 |
| 15 | 000001111 | 0 | 15 | reserved | 8290; 8390 | 79; 80 |
| 16 | 000010000 | 0 | 16 | reserved | 8290; 8390 | 79; 80 |
| 17 | 000010001 | 0 | 17 | reserved | 8290; 8390 | 79; 80 |
| 18 | 000010010 | 0 | 18 | reserved | 8290; 8390 | 79; 80 |
| 19 | 000010011 | 0 | 19 | reserved | 8290; 8390 | 79; 80 |
| 20 | 000010100 | 0 | 20 | reserved | 8290; 8390 | 79; 80 |
| 21 | 000010101 | 0 | 21 | reserved | 8290; 8390 | 79; 80 |
| 22 | 000010110 | 0 | 22 | reserved | 8290; 8390 | 79; 80 |
| 23 | 000010111 | 0 | 23 | reserved | 8290; 8390 | 79; 80 |
| 24 | 000011000 | 0 | 24 | reserved | 8290; 8390 | 79; 80 |
| 25 | 000011001 | 0 | 25 | reserved | 8290; 8390 | 79; 80 |
| 26 | 000011010 | 0 | 26 | reserved | 8290; 8390 | 79; 80 |
| 27 | 000011011 | 0 | 27 | reserved | 8290; 8390 | 79; 80 |
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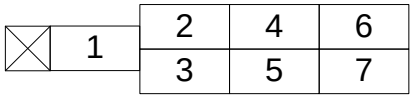
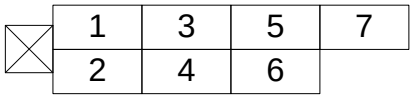
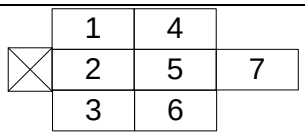
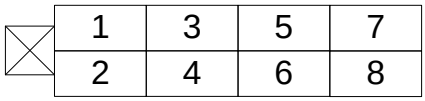
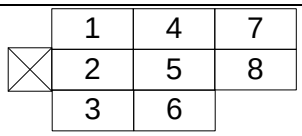
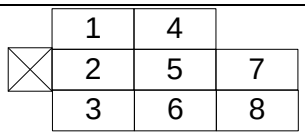
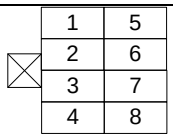
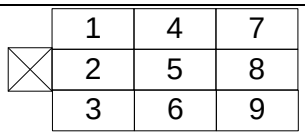
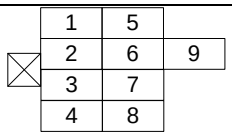
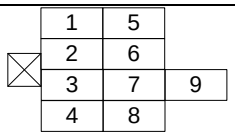
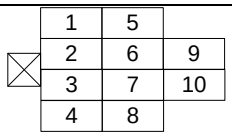
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| 87 | 001010111 | 1 | 6 | unknown shape | 8070; 8090; 8100 | 79; 89 |
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| 89 | 001011001 | 1 | 8 | unknown shape | 8070; 8090; 8100 | 79; 89 |
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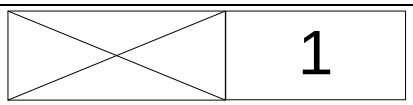
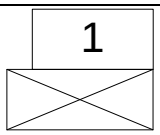
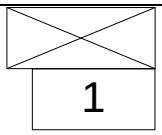
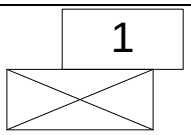
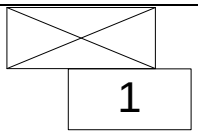
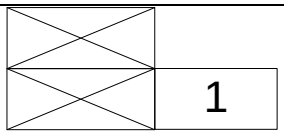
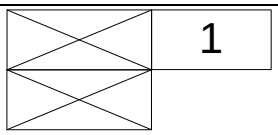
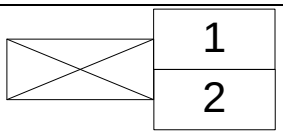
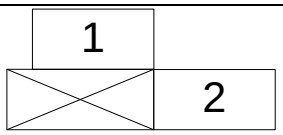
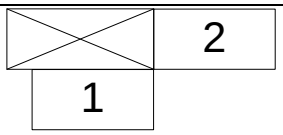
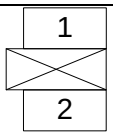
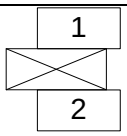
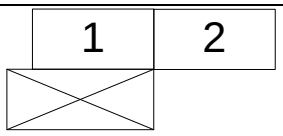
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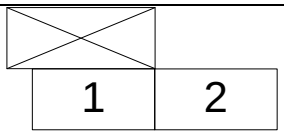
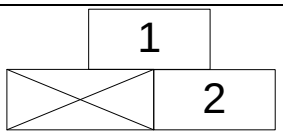
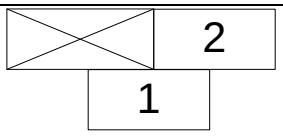
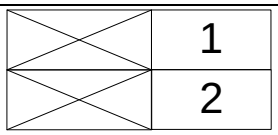
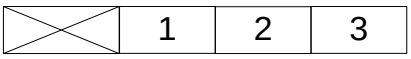
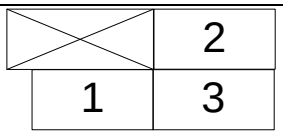
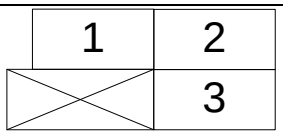
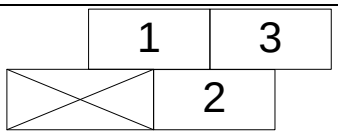
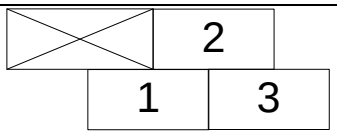
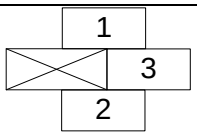
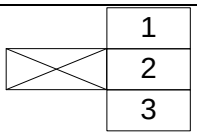
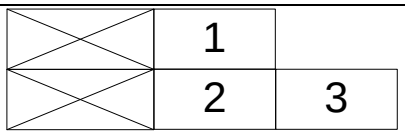
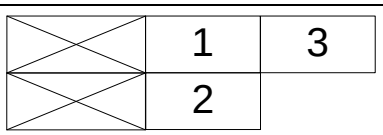
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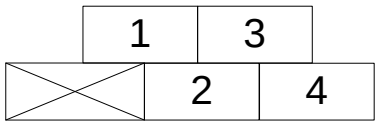
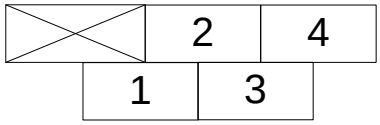
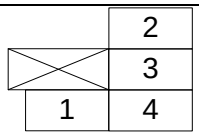
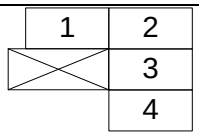
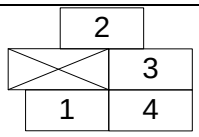
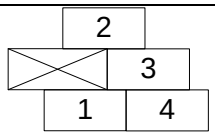
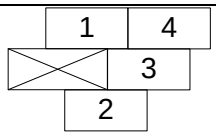
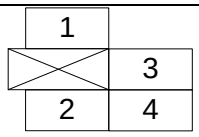
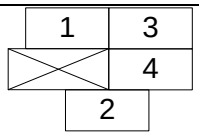
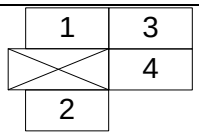
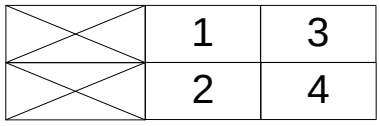
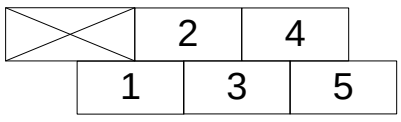
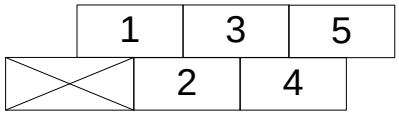
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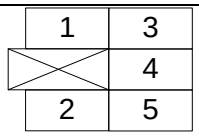
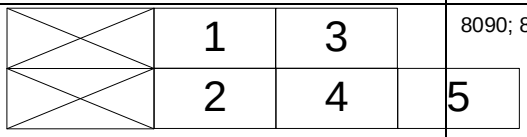
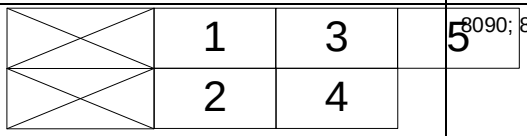
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| 327 | 101000111 | 1 | | reserved | 8090; 8100 | 79; 89 |

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| 330 | 101001010 | 1 | | reserved | 8090; 8100 | 79; 89 |
| 331 | 101001011 | 1 | | reserved | 8090; 8100 | 79; 89 |
| 332 | 101001100 | 1 | | reserved | 8090; 8100 | 79; 89 |
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| 359 | 101100111 | 1 | | reserved | 8090; 8100 | 79; 89 |
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