

The Analizador integral de versos

An online instrument for the analysis of Spanish verse

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1. At a glance

The Analizador integral de versos is a freely accessible online instrument that examines in full a Spanish line of verse, a stanza or an entire poem: it divides the syllables, determines the stresses, identifies the poetic licences by which an author reaches the intended measure, names the type of line, traces its rhythmic contour, measures its sound content, and finally establishes the rhyme scheme and the form — from the cuarteto or the lira to the sonnet, the romance or the haiku.

What a trained specialist accomplishes with pencil and paper in some twenty minutes, the programme completes in a fraction of a second — and, far more important pedagogically, it lays the entire reasoning open to view. The Analizador does not deliver an oracle, but a demonstration that can be followed step by step.

The system has a history of more than twenty years behind it. The poet Héctor A. Piccoli (Bibliele / Transgrama) had, from 2002 onwards, developed a series of analytical modules without equal in the Spanish-speaking world. The Analizador integral of 2026 is the complete recasting of that legacy: three parallel single-purpose programmes have become one self-contained instrument. The older modules remain unchanged and accessible; the new tool stands beside them, not in their place.

2. What happens when a line is entered

One types a line of verse into a text field and clicks Analizar. Let us take a classical hendecasyllable as our example. The programme then passes through eight cumulative layers and presents the result in clearly separated, consecutive sections.

Layer 1 — Orthographic normalisation

The text is first cleared of typographic noise: curly quotation marks, double spaces, inconsistent Unicode encodings. At the same time — and this is the delicate part — the author's own marks remain untouched: if a poet writes a diaeresis (¨) or a circumflex (^), these are deliberate metrical instructions, not typing errors. The programme distinguishes rigorously between what stands in the poem and what the analysis itself later adds by way of notation.

Layer 2 — Prosodic syllabification and stress

Here the seven Spanish syllabification rules established by Antonio Quilis (Métrica española, § 3.2) are applied. An essential point for the non-specialist: the division is

phonic, not morphological. The word inútil is divided i-nú-til, not in-ú-til — the spoken syllable governs, not the word-forming element. Because experience shows this distinction to be the commonest source of confusion, the programme automatically displays an explanatory note for words carrying prefixes such as in-, nos-, des-, pro-...

In parallel, the programme determines the stressed syllable of each word. The Spanish accentuation rule alone does not suffice for this: whole word classes — articles, prepositions, conjunctions, clitics, unstressed possessives — carry no accent within the line, although they are independent words. The Analizador therefore maintains a list of unstressed monosyllables — set out in a separate file that anyone may consult and correct, and deliberately conservative: where the manuals disagree, the word is left stressed and adjusted afterwards, line by line. The distinction between stressed and unstressed homographs (tú / tu, él / el, sí / si) is already made by the written accent, and an accompanying counter-list serves documentation alone.

Layer 3 — Detection of metrical licences

Here is where the real interest begins. A Spanish line does not simply have a fixed syllable count — it has a space of decision. Wherever vowels meet, the line may take one of two paths:

Position	Merging	Separation
between two words	synalepha (sinalefa)	hiatus (dialefa)
within a single word	synaeresis (sinéresis)	diaeresis (diéresis)

This layer decides nothing. It merely draws up the complete inventory of open possibilities.

Where three or more vowels meet — double synalepha, the triple, rarer still — the deciding rule is the one formulated by Samuel Gili Gaya, which rests upon the vowel triangle, the scheme devised in the late eighteenth century by Christoph Friedrich Hellwag to order the vowels according to their degree of aperture: several vowels may merge into one syllable only if they form a steadily rising (iea) or falling (aei) series of aperture, or if the close vowels stand at the edges and the open ones in the middle. With two vowels the merging is admissible unless stress or a pause forbids it, and the rule does not decide; from three onwards the Analizador computes it and reports the outcome with the reasoning attached.

Layer 4 — The solver: the heart of the system

At this point the programme differs fundamentally from every known syllable counter. It does not operate as an assembly line applying rules one after another, but as a search procedure within a space of possibilities.

The solver takes all the open licences from Layer 3 and works through their combinations. For each combination it calculates:

- the resulting metrical syllable count — normalised, that is, corrected for the ending of the line: oxytone (aguda) +1; paroxytone (llana) ±0; proparoxytone (esdrújula) −1; and, in the rare case of stress on the fourth-last syllable, −2;
- whether the rhythmic accents fall on the positions required by a canonical scheme.

Four strict schemes are held on file: the heroic hendecasyllable (accent on the 6th and 10th syllables), the sapphic hendecasyllable (4th, 8th, 10th), the hendecasyllable de gaita gallega (4th, 7th, 10th — named after the rhythm of the Galician bagpipe) and the Spanish alexandrine (6th and 13th syllables, divided into two hemistichs of seven

syllables each, separated by a caesura). For all remaining lengths from two to twenty syllables the programme holds the canonical designation ready — from bisílabo to icosílabo.

Where the solver finds several valid readings, it returns the most natural: the one that does least violence to the normal behaviour of Spanish — synalepha as the standard case between words and hiatus as the standard case within a word, so that synaeresis, being a licence and not default behaviour, is applied only where no reading of greater naturalness attains the measure — unless the circumflex imposes it. Where it finds none, it does not refuse an answer but delivers the free diagnosis: the syllable count actually observed, without assignment to any canonical scheme.

Layer 5 — Rhythmic articulation after Navarro Tomás

A line of verse is more than a syllable count; it has a rhythmic shape. Following the model of Tomás Navarro Tomás, the programme divides the line into:

- the anacrusis — from none to three unstressed syllables preceding the first rhythmic accent;
- the rhythmic groups (Sp. cláusulas rítmicas) — trochaic, dactylic, neutral, monosyllabic or irregular;
- the dominant rhythm — trochaic, dactylic, mixed, or without clear definition.

One refinement deserves mention, because it shows how closely the programme follows philological practice: where two stressed syllables collide, both cannot carry a rhythmic ictus. The Analizador applies the rule that the stress of the polysyllable prevails over that of the monosyllable — exactly as an attentive reading aloud would render the line.

Layer 6 — The alliterameter

This layer is the most idiosyncratic and at the same time the most original. It rests on the thesis advanced by Héctor A. Piccoli and Claudio J. Sguero (Sobre la versificación, 2012) that alliteration in poetic speech is not an ornamental accessory but a constitutive element — and therefore belongs not in a footnote but in the front rank of the analysis.

The alliterameter measures sound recurrence on three hierarchically weighted levels:

- Level I — lexical and syllabic recurrence: repetition of whole words and syllables (weight 0.22).
- Level II — consonantal and vocalic alliteration by position: each syllable is here divided into onset, nucleus and coda; the recurrence of a sound is weighted according to which of these positions it occupies. Digraphs (ch, ll, rr, qu, gu) are treated as a single sound, gu and qu counting as digraphs only where the u is in fact silent. Weight 0.70: this is alliteration proper, and therefore concentrates the weight.
- Level III — graphematic recurrence: the mere iteration of written characters (weight 0.08), the written shadow of alliteration, carried along as a token only.

To these are added two special detectors, for internal rhyme and for paronomasia; both enter the weighted total as separately capped increments and are at the same time listed individually, so that the provenance of the figure remains visible.

In successive approaches the alliterameter was reordered on three principles taken from the Stabreim of ancient Germanic poetry, whence the concept of alliteration itself derives: phonemic identity prevails over mere similarity — that two phonemes share a place of articulation does not make them equivalent; the ictus is decisive, and the alliterameter now weights the rhythmic accent already computed in Layer 5, and

not mere lexical stress; and the word-initial position is the proper seat of historical alliteration, so that interior position and coda count for much less.

What is decisive is the intellectual honesty of this construction: all the weightings reside in a separate, extensively commented file (`alliteration-config.js`) expressly intended to be altered. The source itself describes the alliterameter as experimental and contains instructions for recalibrating the values against a corpus of one's own. Anyone who distrusts the result may inspect the assumptions and change them — a transparency by no means to be taken for granted in digital literary studies.

Layer 7 — The sound inventory of the line

This layer is purely descriptive: it evaluates nothing, it counts and classifies. Among the items reported are:

- character frequencies with their positions; digraphs; sound clusters (x = /ks/);
- open and closed syllables (ending in a vowel or a consonant respectively);
- all vowels, broken down along both axes of Hellwag's triangle — that of aperture, with a at one extreme, i and u at the other and e and o in the middle, and that of acuteness, running from i, the most acute, to u, the gravest, by way of the central a; this second axis gives the line its colour, since an accumulation of acute vowels brightens it and one of grave vowels darkens it;
- all consonants by voiced / voiceless, by place of articulation and by manner of articulation (stops, fricatives, nasals, and so forth);
- special cases such as the silent u in gu- / qu- and the y in consonantal as against vocalic function;
- the range of possible syllable counts — from the maximally merged to the maximally separated reading.

This last point is more valuable didactically than it sounds: it makes visible that a line does not have a single possible measure, but a range of measures among which the poet has chosen.

Layer 8 — Strophic analysis

If several lines are entered, a further level comes into play. The programme calculates a rhyme signature for each line, separately for assonantal rhyme (assonance) and consonantal rhyme (full rhyme), according to the rules of Isabel Paraíso Almansa. Two of those rules hold for assonance alone: the equivalence of the velar series (o ≡ u) and the palatal series (e ≡ i) in the unstressed ending, and the skipping of the intermediate syllable in proparoxytones. Consonantal rhyme is taken literally, from the nucleus of the stressed syllable to the end of the line. The counting of diphthongs by their nucleus holds for both.

From this the rhyme scheme is formed in canonical notation — capitals for lines of nine syllables or more (arte mayor), lower case for shorter ones (arte menor), a dash for unrhymed lines. The programme then compares the shape thus obtained against a catalogue of canonical forms. That catalogue gives an account of three distinct orders:

- Types of poetic composition (tipos de composición poética) — the composition as a whole: the sonnet, for example.
- Types of strophic composition (tipos de composición estrófica) — the stanza as a constituent member: cuarteto, lira, décima, among others.

The third order of that classification — that of the verse syntagms (tipos de syntagmas versales: from the disyllable through the octosyllable, the hendecasyllable and the alexandrine to the twenty-syllable line) — does not belong to this layer: it has already

been established in Layer 4 and enters the determination of form as a condition. Keeping the three orders apart is no formality but the very precondition of the programme's verdict being intelligible: a sonnet is a poem, a cuarteto a stanza, a hendecasyllable a line — magnitudes of three distinct levels, which a single undifferentiated catalogue would tacitly equate.

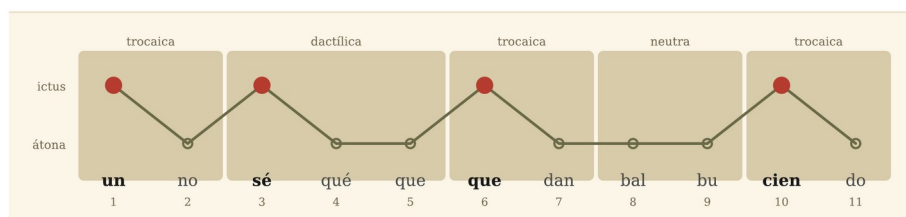
Where no form applies, the verdict remains differentiated rather than helpless: “isosyllabic stanza with consonantal rhyme”, “series of n syllables without rhyme (versos sueltos)”. For heterometric stanzas the deciding axis is not rhyme but the recurrence of the measures. Where a closed repertoire returns — hendecasyllables and heptasyllables, as in the silva or the lira — the programme calls the stanza mixta and states which measures recur; where the measures merely vary without returning, it speaks of free verse. A poem in hendecasyllables and alexandrines without rhyme is composition, not free verse, and the distinction matters. What separates the two cases is a threshold of repertoire concentration, provisionally set and calibrated against the corpus, which resides in an editable data file. In addition the rhythmic axis is reported: whether or not all the lines share the same accentual scheme.

3. The figures of the verse

Two figures accompany every analysis, and neither repeats what the verbal reading already says. Both are native SVG, drawn without any external library; they supersede the diagram module of 2010 (jscharts.js).

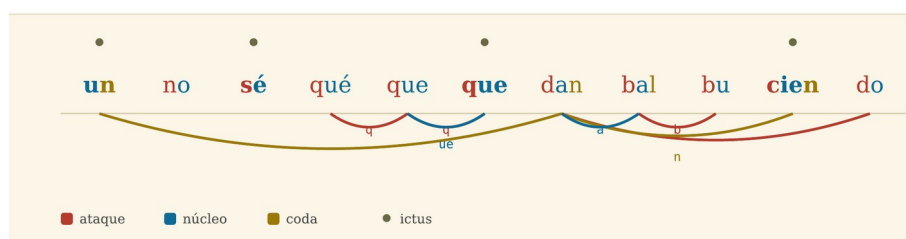
3.1 Rhythmic contour (Layer 5)

The verbal block already enumerates the rhythmic groups — “trochaic · dactylic · neutral”. What no list can give is the shape: where the ictus cluster, where the thesis — the unstressed syllable — falls, how the line closes. The profile draws exactly that. The bands group the cláusulas; the filled dots are the ictus, taken after the demotion rule (the stress of the polysyllable prevails over that of the monosyllable), not the mere lexical stress.



3.2 Partitura del verso — sound recurrence (Layer 6)

The alliterameter reports how much recurrence a line holds and with what weight. What it cannot report is where that recurrence falls and at what distance — whether the repetitions crowd into one hemistich or span the whole line. Each metrical syllable appears split into onset, nucleus and coda, one colour per position, and an arc joins every pair of syllables that repeat the same unit in the same position.



Example: a hendecasyllable of St John of the Cross, alliterameter 52.9 ("intense"). The cluster of red arcs over qué · que · que is what raises the figure — and it is visibly concentrated in the middle of the line.

Technical note. Both figures are inline SVG built by `src/ui/figuras.js`, with no dependencies and no build step: they will render the same way in ten years. Colour is emitted as CSS variables, so light and dark themes need no regeneration; the onset/nucleus/coda triad was validated against the paper background for normal vision and for protanopia, deuteranopia and tritanopia, and colour never carries meaning alone — every figure is labelled. When a very recurrent line exceeds the ceiling of drawable arcs, the figure declares how many were left out instead of pretending to show everything.

4. Three ways of working

The interface offers three modes answering to different needs:

Free analysis (the default) — purely descriptive. One enters a line and receives the complete evaluation without having told the programme beforehand what to expect. This is the mode of discovery.

Metrical validation — one selects a target scheme (say, "heroic hendecasyllable") and receives an unambiguous verdict as to whether the line conforms to it, together with the reasoning. This is the mode of verification: for students checking their own scansion, and for poets working on a line.

Strophic analysis — several lines at once, with rhyme scheme, determination of form and rhyme detail for each individual line. It is also the mode in which the programme recognises entire poetic compositions — the sonnet, the romance, the haiku, the tanka — and not the stanza alone.

5. How the programme is built

Even without technical training, the construction repays a look, for it is unusual and in several respects exemplary.

Pure JavaScript, no external libraries. The entire analytical core consists of JavaScript to the ES2022 standard — no React, no Vue, no framework, no build step. It comprises some 185 kilobytes of readable and continuously commented source, to which the interface is added. This means that the programme has no dependencies liable to grow obsolete, to break, or one day to vanish from the network. It will run exactly the same way in ten years' time.

Everything runs in the browser. There is no server doing the computing and no database. Whoever enters an unpublished line transmits it to no server — the analysis takes place on the user's own machine. For authors working on unpublished texts this is not a marginal consideration.

Externalised in data rather than hard-wired in the programme. This is the most important design decision. The central bodies of rules do not reside in the programme code but in separate, extensively commented data files: the phonology in `phonology.js`, the vowel triangle in `hellwag.js`, the unstressed monosyllables in `atonos.js`, the prefixes in `prefijos.js`, the verse schemes in `verse-schemas.js`, the weightings of the alliterameter in `alliteration-config.js`, the thresholds of metrical regularity in `regularidad-config.js`.

The practical consequence: a specialist in the field can correct and extend the system over wide stretches without knowing how to programme. Whoever wishes to add a new type of line enters it in a list. Whoever finds that a given word is wrongly listed

as stressed alters an entry. Each of these files carries a comment expressly inviting precisely that. The tool is thus not a finished product but a working basis.

Clear stratification. The eight layers are held in eight separate modules — normalizer , syllabifier , license-detector , solver , rhythm-clauses , alliteration , composition-analysis , strophic-analysis — each with exactly one task and none needing to know the others. An error in the rhyme analysis cannot impair the syllabification.

A test page of its own. An accompanying test page (tests/runner.html) computes a stored control corpus and reports every deviation individually. It comprises thirty-two cases: the nine annotated specimen analyses from Piccoli's materials, a supplementary corpus of canonical lines, three lines testing intervocalic h, and fifteen single words for borderline cases of syllable division. Whoever alters a rule sees at once which other passages have thereby ceased to hold.

Integration into the website. At pluriversalialia.com.ar the analytical core is embedded in a page built with the Astro generator. The switch between light and dark appearance is passed from the containing page to the embedded analysis window without impairing the latter's independence. The core remains a self-contained unit which functions fully outside the website as well — locally, for instance, on a machine without internet access.

6. The value for teaching and study

Here lies the true justification of the project: the Analizador is conceived as a propaedeutic instrument, that is, one which does not merely deliver results but introduces a discipline.

The reasoning is the result. A syllable counter that returns “11” teaches nothing. The Analizador shows every intermediate step: which syllables it formed, which mergings were available, which it applied and which it discarded, how the normalised count follows from these, and why the line is finally called sapphic rather than heroic. Students learn not the answer but the procedure.

Ambiguity is not evaded. Because the programme works as a search procedure and not as a chain of rules, it makes visible something textbooks are apt to pass over in silence: a line often admits several valid readings. The display of the possible syllable range leads beginners to grasp scansion for what it is — a reasoned interpretation and not a mechanical count. Whoever has once understood this point reads poetry differently.

Immediate feedback. The validation mode turns homework into an exercise with self-correction. One scans by hand, checks, finds the discrepancy and grasps the rule through one's own error — the most effective of all ways of learning, and one that a seminar of thirty cannot offer individually.

Metrics joined to phonetics. The section on the sound inventory and Hellwag's triangle bring together what university teaching commonly distributes over different semesters: Spanish metrics and Spanish phonetics. That a synalepha is admissible because the vowels involved form a falling series of aperture is an insight bearing on both fields at once.

Connection to the scholarly literature. The system names its sources in the source code itself — Quilis for syllabification, Navarro Tomás for rhythm, Gili Gaya for the rule of synalepha, Paraíso Almansa for rhyme, Piccoli and Sguro for the theory of alliteration. Whoever does not understand a statement of the programme finds the reference to the place where it may be read up. The tool leads back into the library instead of replacing it.

An open object, not a closed apparatus. Because the central rules stand in readable data files, a seminar can make the programme itself its object of enquiry: one alters a weighting, recomputes a corpus and discusses the changed result. The tool becomes a laboratory.

7. Prospects

The Analizador is conceived as a growing instrument, and its construction is expressly designed to that end.

The catalogue of verse schemes and of forms continues to grow step by step. The alliterameter, the most original part of the system, expressly understands itself as an open research instrument: its weightings are a reasoned stipulation, to be tested and readjusted against larger corpora — and the file in which this is done lies open and commented alongside. The list of prefixes for which the programme signals the difference between phonic and morphological syllabification is deliberately kept short and invites specialists to extend it.

What is presented here is therefore not a finished product but a shared tool — and an invitation to take part in it.

8. Origin and authorship

Conception and metrical theory: Héctor A. Piccoli and Claudio J. Sguero (Bibliele / Transgrama). Technical recasting: 2026, within the project Pluriversalia.

Theoretical foundations: Antonio Quilis, *Métrica española*; Tomás Navarro Tomás, *Métrica española*; Rudolf Baehr, *Spanische Verslehre auf historischer Grundlage*; Isabel Paraíso Almansa, *La métrica española en su contexto románico*; Héctor A. Piccoli / Claudio J. Sguero, *Sobre la versificación* (2012); Samuel Gili Gaya on the rule of synalepha; Christoph Friedrich Hellwag for the vowel triangle.

Available at: <https://pluriversalia.com.ar/analizador/>