# Dynamic Tree Creation

Algorithmic image

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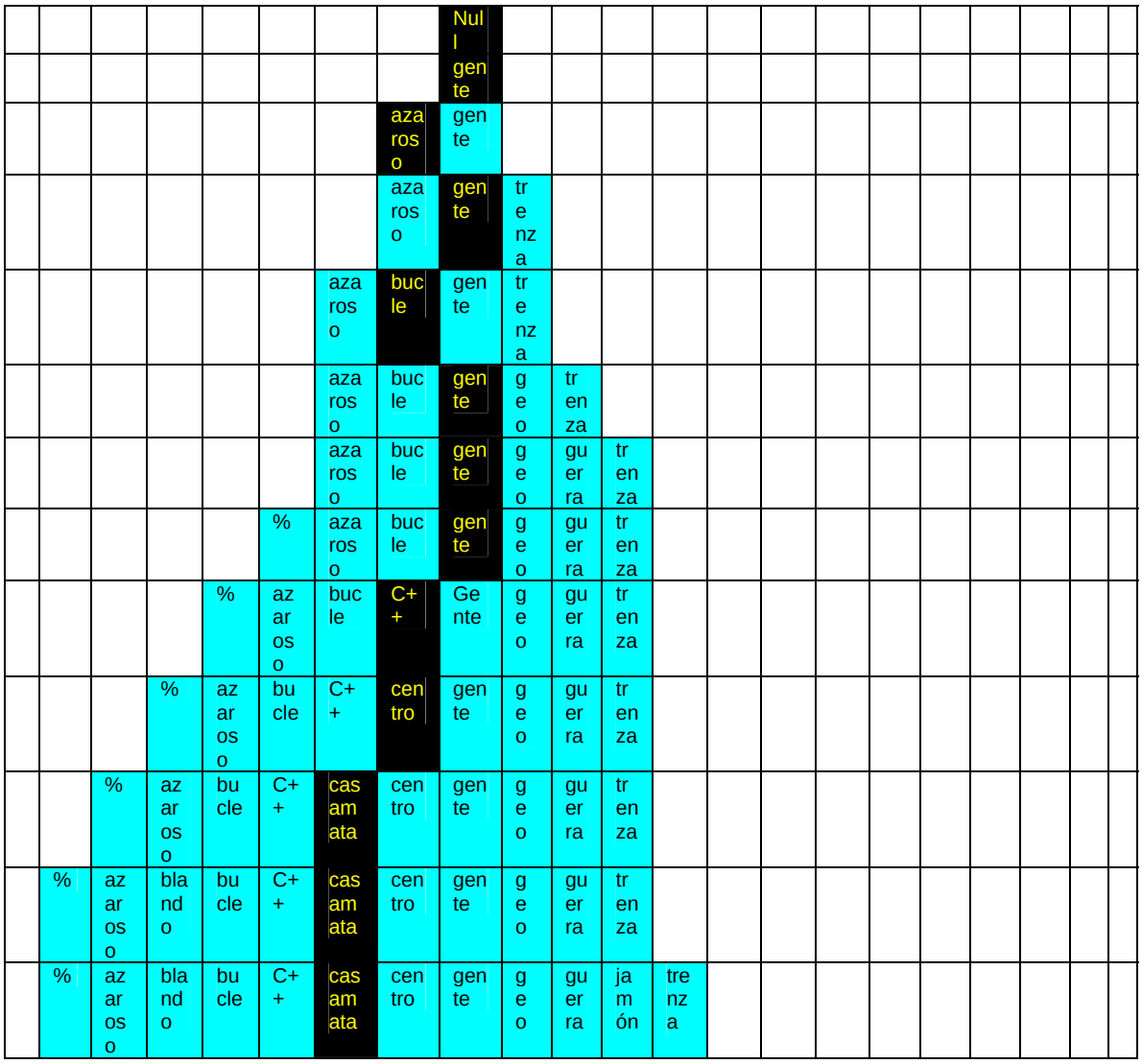
Let's suppose we have the following words (Spanish) appearing in order from left to right. The figure depicts how words and/or symbols are added binary wise to a dynamic "middle axis" depicted in black. The gnomic rule is visually straightforward.

[gente, azaroso, trenza, bucle, geo, guerra, %, C++, centro, casamata, blando, jamón, Tren, Susto, wifi, sosías, silencio, asunto, crisis, atlas, bruto],

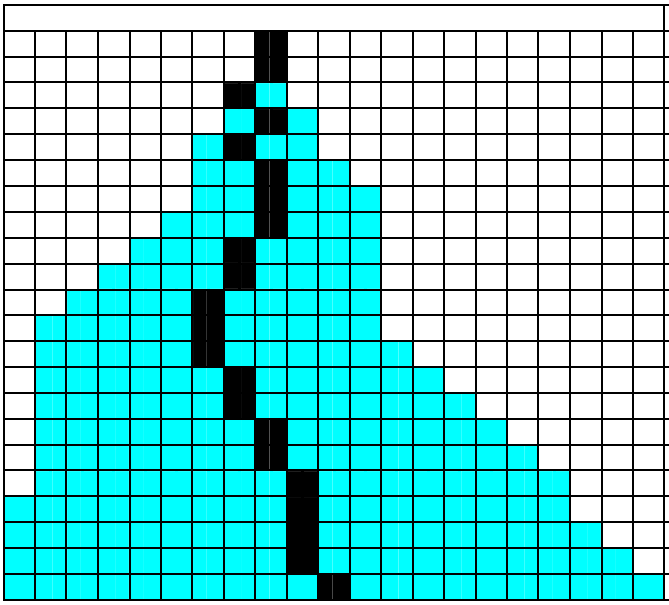
Permuted to

[%, asunto, atlas, azaroso, blando, bruto, bucle, C++, casamata, centro, crisis, gente, geo, guerra, jamón, silencio, sosías, susto, tren, trenza, wifi]



| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | azaroso | blando | bucle | C++ | casamata | centro | gente | geo | guerra | jamón | tren | trenza | | | | | | | | |
| | % | azaroso | blando | bucle | C++ | casamata | centro | gente | geo | guerra | jamón | susto | tren | trenza | | | | | | | |
| | % | azaroso | blando | bucle | C++ | casamata | centro | gente | geo | guerra | jamón | susto | tren | trenza | wifi | | | | | | |
| | % | azaroso | blando | bucle | C++ | casamata | centro | gente | geo | guerra | jamón | sosías | susto | tren | trenza | wifi | | | | | |
| | % | azaroso | blando | bucle | C++ | casamata | centro | gente | geo | guerra | jamón | silencio | sosías | susto | tren | trenza | wifi | | | | |
| % | asunto | azaroso | blando | bucle | C++ | casamata | centro | gente | geo | guerra | jamón | silencio | sosías | susto | tren | trenza | wifi | | | | |
| % | asunto | azaroso | blando | bucle | C++ | casamata | centro | crisis | gente | geo | guerra | jamón | silencio | sosías | susto | tren | trenza | wifi | | | |
| % | asunto | atlas | azaroso | blando | bucle | C++ | casamata | centro | gente | geo | guerra | jamón | silencio | sosías | susto | tren | trenza | wifi | | | |
| % | asunto | atlas | azaroso | blando | bruto | bucle | C++ | casamata | centro | crisis | gente | geo | guerra | jamón | silencio | sosías | susto | tren | trenza | wifi | |

We may program this via two types of pointers: *izq, *der, as it's shown schematically below



| pointer | [medio] |
|---|---|
| - | Null |
| I | Gente |
| I | Azaroso |
| D | Gente |
| I | Bucle |
| D | Gente |
| D | Gente |
| I | Gente |
| I | C++ |
| I | Centro |
| I | Casamata |
| I | Casamata |
| D | Centro |
| D | Centro |
| D | Gente |
| D | Gente |
| D | Geo |
| D | Geo |
| I | Gente |
| D | Crisis |
| D | Crisis |
| D | Geo |