⊛ ChatGPT

Estimated Code Size of Popular Open-Source ERP Systems

The table below compares approximate **lines of code (LOC)** for each ERP system, along with a breakdown by major programming languages, source of the estimate, and notes on the code repository structure (monolithic vs. multi-repository and what parts are counted):

ERP System	Approx. Total LOC (backend + frontend)	Main Languages (% or LOC)	LOC Source/ Method	Repo Structure & Scope
Odoo	~1.94 million LOC [1]	JavaScript (~45%), Python (~37%), XML (~17%) [1] [2]	OpenHub analysis (GitHub repository) [1]	**Monorepo** – All community (open-source) core and official modules in one repo (enterprise add-ons excluded).
ERPNext	~1.93 million LOC [3]	Python (~53%), JavaScript (~19%), XML (~14%) [3] [4]	OpenHub analysis (combined Frappe framework + ERPNext app) [3]	**Multi-repo** – Frappe framework + ERPNext modules counted together (core platform plus all standard modules).
Dolibarr	~1.2 million LOC (core code; ~1.75 M including vendor libs) [5]	PHP (~56%), HTML (~23%), SQL (~8%) [6]	Static analysis (cloc/ApStats report) [5]	**Monorepo** – Single repository including all core ERP/CRM modules (web-based PHP app; figure excludes third-party libraries).
Apache OFBiz	~79 thousand LOC [7]	Java (~56%), XML (~30%), Groovy (~10%) [8] [9]	OpenHub analysis (framework core only) [7]	**Multi-repo** – Core framework vs. "plugins" modules. *LOC above is for core framework ("ofbiz-framework"); additional business modules (in "ofbiz-plugins") are not included in this count.*

ERP System	Approx. Total LOC (backend + frontend)	Main Languages (% or LOC)	LOC Source/ Method	Repo Structure & Scope
iDempiere	~2.20 million LOC [10]	SQL (~56%), Java (~39%) [10] [11]	OpenHub analysis [10]	**Monorepo** – All server code and modules in one repository (fork of ADempiere, using OSGi; includes core + plugins).
ADempiere	~12.53 million LOC [12]	XML (~59%), Java (~23%), SQL (~16%) [12] [13]	OpenHub analysis [12]	**Multi-repo** – Aggregated from many code locations (community fork of Compiere). *Very large codebase due to extensive XML config and DB scripts; figure appears to include all modules and historical code.*
Openbravo	~7.2 million LOC [14] (est. as of 2015)	Java (~50%), JavaScript (~35%), HTML (~11%) [15]	Research study (2015) [14] + GitHub language stats [15]	**Monorepo** – Single codebase (Java EE webapp) including core ERP and modules (older versions on Mercurial; analysis may include all official modules and some localization addons).
Tryton	~0.50 million LOC [16]	Python (~55%), XML (~35%), JavaScript (~6%) [17] [18]	OpenHub analysis [16]	**Multi-repo** – Modular architecture (Tryton server plus many official module packages). *LOC is combined total for the platform and all standard modules.*
webERP	~4.20 million LOC [19]	PHP (~56%), HTML (~23%), SQL (~8%) [20] [6]	OpenHub analysis [19]	**Monorepo** – Entire ERP in one PHP codebase (no separate modules repositories). *Includes legacy code; minimal external dependencies.*

ERP System	Approx. Total LOC (backend + frontend)	Main Languages (% or LOC)	LOC Source/ Method	Repo Structure & Scope
metasfresh	~4.71 million LOC [21]	Java (~51%), SQL (~38%), XML (~5%) [21] [22]	OpenHub analysis [21]	**Multi-repo** – Several repositories (core backend, web frontend, etc.) counted together. Based on ADempiere fork, with a Java backend and modern web UI.

Sources: LOC figures are drawn from code analysis tools (OpenHub reports, cloc/SLOC counts, research publications) as cited. Each percentage breakdown corresponds to the share of source code in that language according to the analysis (e.g. Odoo's ~1.94M LOC is ~45% JavaScript, ~37% Python, etc. [1] [2]). Notes on repository structure clarify whether the count covers the whole ecosystem of modules or just the core engine.

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[1] [2] The Odoo Open Source Project on Open Hub
https://openhub.net/p/odoo

[3] [4] The ERPNext Open Source Project on Open Hub
https://openhub.net/p/erpnext

[5] cti.dolibarr.org
https://cti.dolibarr.org/

[6] [19] [20] The webERP Open Source Project on Open Hub
https://openhub.net/p/weberp

[7] [8] [9] The Apache OFBiz® trunk Open Source Project on Open Hub
https://openhub.net/p/Apache-OFBiz

[10] [11] The iDempiere Open Source Project on Open Hub
https://openhub.net/p/iDempiere

[12] [13] The ADempiere Open Source Project on Open Hub
https://openhub.net/p/adempiere

[14] Understanding Enterprise Open Source Software Evolution
https://www.researchgate.net/profile/Maria-Tortorella/publication/
283170937_Understanding_Enterprise_Open_Source_Software_Evolution/links/5756b19608aec74acf5ae0fd/Understanding-
Enterprise-Open-Source-Software-Evolution.pdf

[15] GitHub - openbravo/openbravo-erp
https://github.com/openbravo/openbravo-erp

[16] [17] [18] The Tryton Open Source Project on Open Hub
https://openhub.net/p/tryton

[21] [22] The metasfresh Open Source Project on Open Hub
https://openhub.net/p/metasfresh