



Simulador de Monte Carlo para Análisis de Riesgos de Proyecto

Introducción al Simulador de Monte Carlo Potenciado por IA



projectworklab


Welcome to the AI-Enhanced Monte Carlo Simulator for Project Risks!

This application empowers project managers and analysts with a powerful tool for performing Monte Carlo simulations, a technique widely used for project risk analysis and forecasting. Now, enhanced with cutting-edge AI analysis! By simulating thousands of scenarios based on uncertain inputs, not only can you gain insights into the potential outcomes of your project, but our AI algorithms will also provide deeper, actionable insights derived from the results. Upload your risk register with probabilities and impacts, run simulations, and get both visual results and AI-driven insights. Discover the power of combining traditional risk analysis with the capabilities of artificial intelligence!

Login

Interested in your own beta account? Let us
know!


Simulador de Monte Carlo Potenciado por IA para Riesgos de Proyectos



Revolucionando el Análisis y la Previsión de Riesgos de Proyectos con IA Avanzada

- ¡Bienvenidos al futuro de la gestión de riesgos de proyectos!
- El Simulador de Monte Carlo Potenciado por IA de ProjectWorkLab combina técnicas tradicionales de análisis de riesgos con IA generativa, ofreciendo perspectivas sin precedentes sobre los resultados de los proyectos.
- Diseñado para gerentes de proyectos y analistas, esta herramienta utiliza simulaciones de Monte Carlo para explorar miles de escenarios potenciales, ayudándote a prepararte y cuantificar reservas ante los riesgos de proyectos de manera efectiva.
- Mejora tu proceso de toma de decisiones con percepciones impulsadas por IA, diseñadas para proporcionar conocimiento profundo y accionable.

Pantalla Inicial



Monte Carlo Simulator for Project Risks

Logged in as: demo [Logout](#)

Drag and Drop or [Select an Excel File](#)

Run Monte Carlo Simulation

Iterations:

[Read Me](#) | **Input Risk Register** | [Simulation Results \(Histograms\)](#)

Using the Risk Simulation Tool:

1. Prepare Your Data:

- Gather your risk data and ensure it is formatted correctly. Your Excel file should have the following column headers:
 - **Probability:** Probability of the risk occurring (between 0 and 1).
 - **Minimum Impact:** Minimum possible risk impact.
 - **Most Likely Impact:** Expected risk impact.
 - **Maximum Impact:** Maximum possible risk impact.
 - **Lambda (optional):** Lambda value for the PERT distribution. Defaults to 4 if not provided.
- Need a template? Download our pre-formatted Excel template below. Please retain the structure of the template; only input your data.

[Excel template](#)

2. Upload Your Data:

- Use the "Drag and Drop or Select the Excel file" option to upload your file. It can have any name but should follow the format mentioned in step 1.
- Once uploaded, review the loaded data's header in the "Input Risk Register" tab to ensure accuracy.

3. Run the Simulation:

- Navigate to the "Simulation Results (Histograms)" tab.
- Click the "Run Monte Carlo Simulation" button to begin the analysis. Ensure you've chosen your desired

How does it work?

When you upload a risk register, you're introducing information about various potential risks and how they might impact the project. Each risk has a certain probability of occurring, and if it does, the impact takes on values based on a [PERT random variable](#).

The simulator uses the [Monte Carlo method](#) to run multiple iterations, or 'rolls the dice' numerous times, to statistically compute the sum of the impacts. As a result, the output isn't a single figure but a distribution of possible impacts.

You can use the resulting histogram to make decisions. For instance, given a contingency reserve you decide to set aside, the histogram can help you determine the probability that the project ends with an impact less than this reserve and, therefore, is successful.

Paso 1: Instrucciones y Entrada de Datos

Pestaña "Read Me"

- Comenzar es simple y directo.
- Sigue nuestras instrucciones fáciles de usar para introducir el registro de riesgos de tu proyecto.
- Sube tus datos con facilidad: nuestra plataforma proporciona una plantilla para tu comodidad."
- La primera pestaña te guía a través del proceso, asegurando que tu análisis de riesgos se base en datos precisos y completos.



Got it! Drag and Drop a new file or [Select a new Excel File](#)

Run Monte Carlo Simulation

Iterations:

Read Me

Input Risk Register

Simulation Results (Histograms)

Uploaded Data

Number of risks read: 5

Input Excel:

Probability	Minimum Impact	Most Likely Impact	Max Impact
0.2	10000	20000	30000
0.05	15000	25000	35000
0.1	20000	30000	40000
0.35	25000	35000	45000
0.15	30000	40000	50000

Datos
cargados

Paso 2: Verificación de Datos Cargados

Pestaña "Input Risk Register"

- ¡Confía, pero verifica! La segunda pestaña te permite revisar los datos que has subido.
- Para cada riesgo, habrás introducido su probabilidad, así como tres posibles valores para el impacto: mínimo, más probable, máximo.
- Edita y ajusta tus datos si es necesario, volviéndolos a cargar en la pestaña anterior.
- Este paso es crucial para simulaciones precisas, ya que la calidad de los datos de entrada impacta directamente en la fiabilidad de los resultados.



Selección de número de iteraciones

Got it! Drag and Drop a new file or [Select a new Excel File](#)

Run Monte Carlo Simulation

Iterations:

Read Me


Input Risk Register

Simulation Results (Histograms)

Monte Carlo Simulation Result

Iterations Used: 100000

Paso 3: Selección de número de iteraciones y... ¡Run!



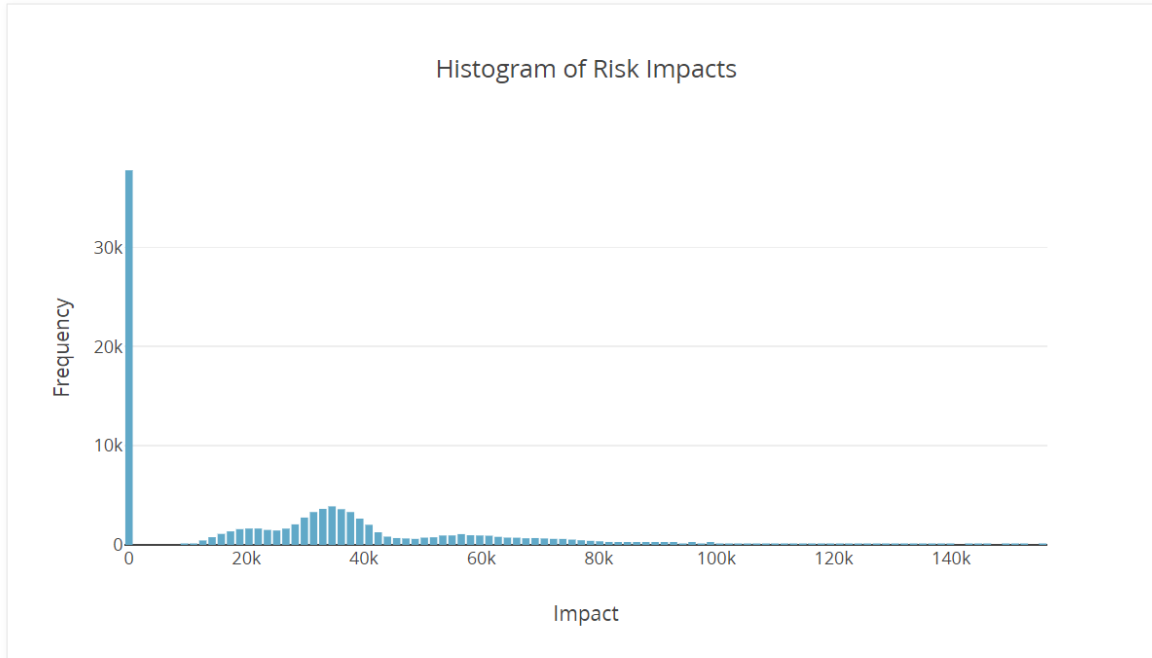
Pestaña "Simulation Results (Histograms)"

- Siempre visible, en la pantalla principal, parte superior, podrás seleccionar el número de iteraciones de la simulación de Monte Carlo.
- El sistema soporta hasta 500 mil iteraciones sin ningún problema. ¡Podrás simular tu proyecto medio millón de veces!
- A continuación, simplemente pulsa el botón Run Monte Carlo Simulation y... ¡en unos segundos verás los resultados!
- El sistema proporciona todo tipo de dashboards sobre el histograma de salida, sus características, probabilidad acumulada.
- Los resultados son analizados mediante IA generativa y podrás ver qué 'insights' te revela....

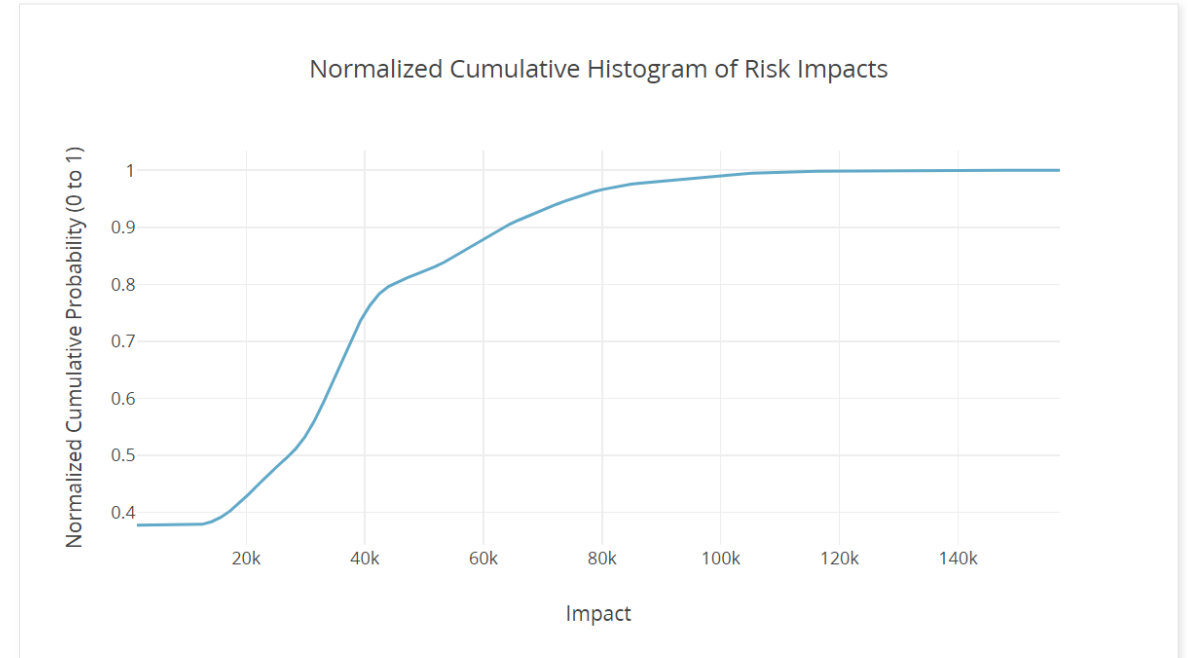
Histograma y Probabilidad Acumulada

Monte Carlo Simulation Result

Iterations Used: 100000



Distribution of risk impacts from the Monte Carlo simulation, showcasing the frequency of potential outcomes.



The cumulative distribution from the Monte Carlo simulation allows for pinpointing specific data points, facilitating the identification of any desired percentile.

Análisis de resultados

Histogram parameters:

Parameter	Value
Mean	26547.9
Median	27264.4
Mode	0.0
Standard Deviation	25956.9
Skewness	0.75
Kurtosis	3.07

Percentiles:

Percentile	Value
50th percentile	27264.4
75th percentile	39994.0
80th percentile	44691.2
85th percentile	55292.6
90th percentile	63315.4
95th percentile	74752.8

Summary of results:

- By setting aside a contingency reserve of 63315.4, there's a 90% probability that the reserve will suffice. Examine other percentiles for further insight in this respect.
- The mode, or the most frequent value observed in our simulation, is 0.0. This means that our most common scenario will have a cost/result of 0.0.
- The spread of results ranges from 0.0 to 157165.2. This indicates the range of potential outcomes we might expect.
- Our results show positive skewness, indicating that the tail on the right side (higher values) of the distribution is longer or fatter than the left side. This means there are more values below the mean than above, with a few higher outliers pulling the mean to the right.
- A kurtosis value greater than 3 suggests a distribution with heavier tails (more outliers) than the normal distribution. Thus, our distribution has heavy tails, indicating a higher probability of extreme values compared to a normal distribution. We should be prepared for outlier scenarios.

Interpretación de resultados con Inteligencia Artificial

AI Insights (new!):

Upon conducting a Monte Carlo simulation to analyze project risks, we obtained several insightful findings not explicitly mentioned in the provided text. Firstly, the contingency reserve of 63315.4 that we have set aside has a 90% probability of being sufficient. This implies that there is a 10% chance that our reserve may fall short, leading to additional costs. To gain a more comprehensive understanding of the potential outcomes, it is essential to explore other percentiles beyond the 90th percentile.

In terms of the distribution of results, the mode, which represents the most frequent value observed, is 0.0. This suggests that on average, our project scenarios are expected to yield a cost/result of zero. While this indicates a neutral outcome, it is necessary to note that the spread of results ranges from 0.0 to 157165.2. This wide range signifies the possibility of extreme values, both positive and negative, beyond the mode. Hence, we should be cognizant of the potential for outcomes that deviate significantly from the mean.

Analyzing the skewness of the distribution, we observe a positive skew. This indicates that the right tail of the distribution, which represents higher values or costs, is longer or fatter than the left tail. In other words, our simulation generates more values below the mean than above it, with a few higher outliers pulling the mean towards the right. This suggests that while the most common scenarios may result in zero cost, there is a likelihood of encountering a few instances with significantly higher costs.

Furthermore, the kurtosis value of 3.07 indicates that our distribution has heavier tails compared to a normal distribution. This signifies a higher probability of extreme values or outliers. Therefore, as project managers, we must be prepared for outlier scenarios that may have a substantial impact on costs. These outliers could potentially result in unforeseen expenses or savings, which need to be accounted for in our risk management strategies.

In conclusion, by analyzing the Monte Carlo simulation results, we have gained further insights into the contingency reserve and the nature of the distribution tails. While the reserve has a 90% probability of sufficiency, we should consider exploring other percentiles to understand the full range of potential outcomes. The distribution of results exhibits a positive skew, indicating a higher likelihood of encountering higher values or costs. Additionally, the kurtosis value suggests a distribution with heavier tails, accentuating the importance of being prepared for outlier scenarios that may have a significant impact on project costs. As we move forward, it is imperative to factor in these insights and incorporate them into our risk management strategies to mitigate potential challenges and capitalize on opportunities.

Resultados interpretados por IA

Pestaña “Simulation Results (Histograms)”

- Experimenta el poder del análisis potenciado por IA en la tercera pestaña, donde la simulación se encuentra con la inteligencia.
- Visualiza resultados detallados y gráficos de miles de escenarios simulados, ofreciendo una comprensión integral de los posibles resultados del proyecto.
- Los algoritmos de IA van más allá del análisis básico, estadístico, proporcionando percepciones más profundas y recomendaciones accionables basadas en los datos de la simulación.
- Toma decisiones informadas con el apoyo de IA avanzada, adaptada para mejorar el éxito de tu proyecto.



¡Explora la Herramienta Demo Hoy!

- Te invitamos a experimentar de primera mano nuestro Simulador de Monte Carlo Potenciado por IA. Accede a nuestra versión demo y descubre cómo esta herramienta puede transformar tu gestión de riesgos de proyectos.

<https://montecarlo.projectworklab.app>

Datos de Acceso a la Demo:

Login: demo

Contraseña: demo

- ¡Explora las funcionalidades, realiza tus propias simulaciones y observa cómo nuestra solución impulsada por IA puede beneficiar tus proyectos!
- Para más información o asistencia, no dudes en contactarnos.



Gracias

ProjectWorkLab

info@projectworklab.com

+34 606578715

