

Introduction to Satellite Link Budgets & Satmaster Pro

Link Budget Fundamentals Satmaster Pro Software & Tools Interpreting & Improving Results

Prepare for the future — today!

Introduction to Satellite Link Budgets & Satmaster Pro is a unique self-paced online course that provides a **basic grounding in satellite link budgets**, and **fundamental instruction on how to use Satmaster Pro** - an industry-wide respected and cost-effective link budget program.

- **Link budgets are the standard tool for designing and assessing satellite communications links**, taking into account various factors including atmospheric propagation, satellite performance and characteristics, ground earth station equipment, radio frequency interference (RFI) from adjacent satellites, modulation characteristics and various other physical layer aspects of satellite communications systems
- Satmaster Pro is a widely-recognized and cost-effective Windows desktop link budget software package produced by Arrowe Technical Services, used in the satellite communications industry
- This Course has been approved by Arrowe, the developers of Satmaster Pro
- When completed the Course will enable delegates to perform simple link budgets and make use of the 60 other tools available within Satmaster Pro
- This Course is aimed at satcoms engineers, technicians, technical managers, and students - anyone that might have an interest in learning about satellite link budgets in general and specifically using Satmaster Pro
- The Course begins by reviewing the basic parameters involved in a satellite link budget, and then moves on to enable delegates to find out how to take advantage of Satmaster Pro to quickly and easily calculate basic (FDMA/SCPC) satellite link budgets for geostationary satellites (note TDMA & PCMA link budgets are not covered in this Course)
- The Course then shows in detail how to complete all the Satmaster Pro input data forms to finally derive a sample link budget, and how to interpret the results

“Introduction to Satellite Link Budgets & Satmaster Pro was just the course I was looking for. Great content, delivery & resource. Made me much more confident in using Satmaster Pro program.”

John T.
Satcoms Engineer

- Delegates move on to perform a number of exercises in adjusting the Satmaster Pro link budget to obtain optimum results
- In addition delegates are introduced to around 60 additional satellite communications engineering tools available in the Satmaster Pro package
- The Course is not an online PowerPoint presentation, or poorly videoed lectures commonly found on the internet, but a highly-developed professional and interactive experience which will enrich delegate's understanding of the link budget process, and the use of the Satmaster Pro software
- It is self-paced, so delegates can progress at the speed they want - complete the Course in a day or so, or over a period up to 365 days after enrolment
- Delegates need to have a basic understanding of satellite communication principles, and although we do not go into great depth on any of the basic principles, the review can (if necessary) form a springboard for delegates to refresh their knowledge through other resources
- To aid accessibility, all video tutorials have Closed Captions
- Delegates have 12 months to complete the Course, and is available for reference after the Course is completed for 12 months from enrolment
- For Organisations, a Group purchase will offer the facility of a dedicated Dashboard for a supervisor to monitor their delegates progress

Course Syllabus

Course Introduction

1. Launch Pad – How the Course works

Module 1 - Link Budget Fundamentals

2. What is a Link Budget?
3. Methods of calculating Link Budgets
4. Frequency Bands
5. Satellite Characteristics
6. Signal Propagation, Atmospheric Effects, Interference & Noise
7. Influence of Modulation & Forward Error Correction
8. Principal Factors
9. End of Module 1 Quiz

Module 2 - Satmaster Pro Software

10. Installing the software
11. Customization & Updating
12. Calculating a Simple Link Budget
13. Input – Uplink & ASI (up)
14. Input – Downlink, ASI (down), Rain Model
15. Input – Satellite
16. Input – Carriers
17. End of Module 2 Quiz

Module 3 - Link Budget Results

18. Interpreting the Results Sample Lesson
19. Improving the Results
20. Link Budget Exercises

Module 4 - Satmaster Pro Tools

21. Other Tools Available
22. End of Module 4 Quiz

Module 5 - Course Conclusion

22. Final Steps

“My company enrolled three of my staff on this Link Budget course and I can see the benefits in their work already.”

Francois M.
CTO

“So glad I found this course, has given me the confidence to feel that I can produce valid link budgets using Satmaster Pro.”

Andrew J.
Technician

“I am part of team looking at customer requests and Introduction to Satellite Link Budgets course has helped me use Satmaster Pro much better in my job.”

Stanislaw W.
Technical Presales

Benefits

- The Course will give the delegate the knowledge to understand satellite link budgets and how to interpret the results
- This Course has been approved by Arrowe, the developers of Satmaster Pro
- Learn how to use the Satmaster Pro software with confidence to produce your own satellite link budgets
- Obtain 12 months access to the Course after initial registration (not affected by when the Course is completed)
- On successful completion of the Course the delegate is issued with a Certificate of Achievement

Prerequisites

To benefit from this Course, delegates will need:

- A basic understanding of satellite communications principles
- Reasonable command of written English
- Access to Windows desktop PC or large tablet
- Reasonably fast internet access (minimum 2Mbps download speed)
- Preferably access to a full installation of Satmaster Pro v10 (rather than the Demo version) to complete this course with Certification. **Satmaster Pro is not provided as part of the Course, so if delegates do not already have access to the software, it can be purchased from Arrowe (www.arrowe.com)**
- A Demo version of Satmaster Pro is available from Arrowe but has limitations. Delegates may still undertake the Course without access to the full version of Satmaster Pro, but will find that the Demo version has no facility to save files worked on, which may make some of the exercises laborious.

Pricing - **Course Price: £500 (+ VAT if applicable)**

- Provides 12 months of access from date of registration
- Payment Methods - Credit/Debit Card or PayPal
- Bank Transfer available for Group purchases only, settlement must be in GBP.
- Group discounts available - please contact info@slingpath.com to make an enquiry
- Refunds - please note that refunds are not available after the Course has been accessed for the first time.

VAT is NOT chargeable to:

- Non-UK/EU Customers
- EU Customers with a valid VAT number entered during the Checkout process (*VAT reverse charge mechanism applies*)

VAT is chargeable to:

- all UK customers
- EU consumers
- VAT is calculated in accordance with the UK/EU VAT rate where the Course is considered to be used by the Customer - this is confirmed during the Checkout process