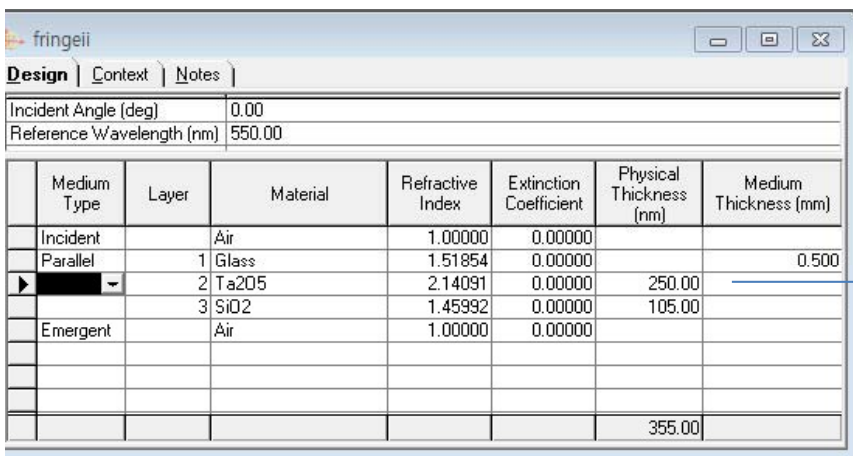


Fringes

선택 사항인 Function의 Scripts에 있는 Fringes를 이용 하여 Layer 두께를 단계별로 자동으로 계산하여 결과 Data를 Table과 Color Patch로 보여 주는 기능.

1. " File > New >Design "

- 해당 Design file을 생성.

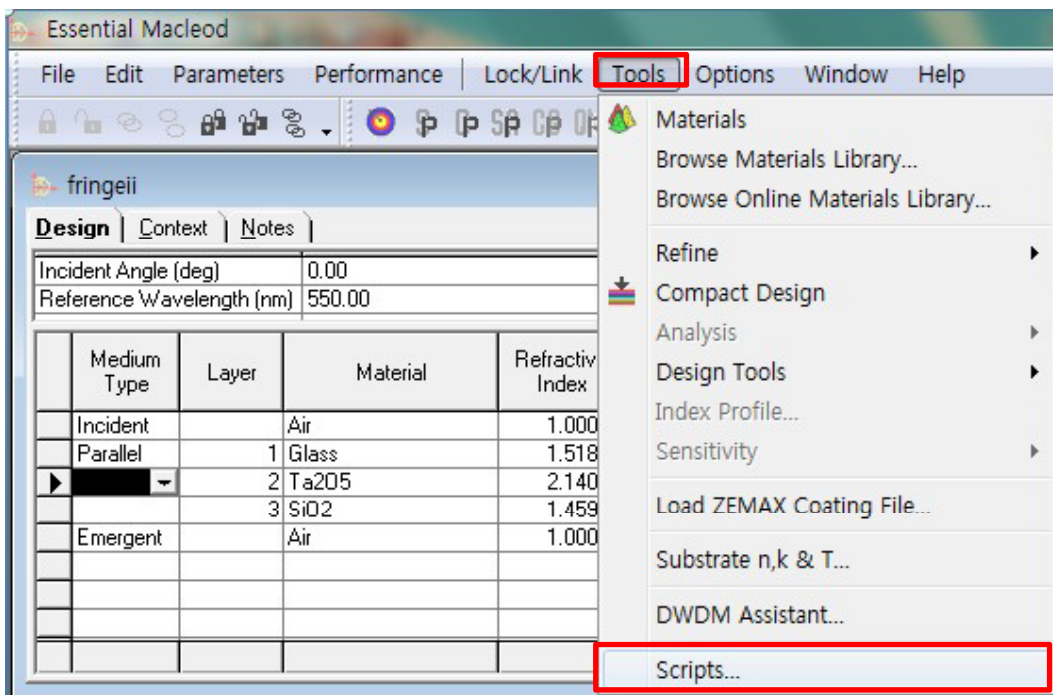


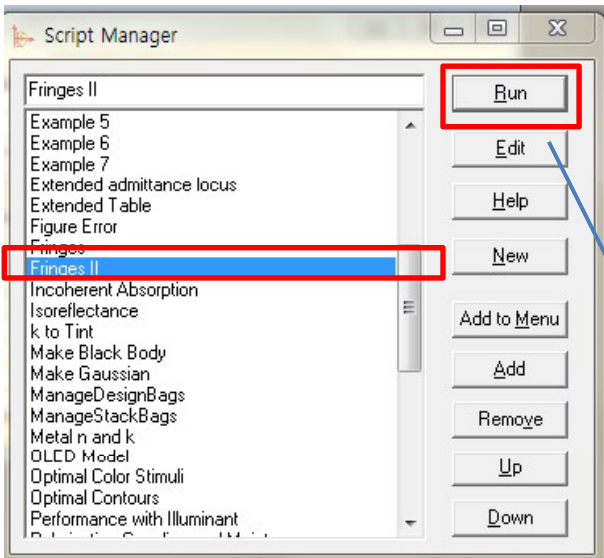
	Medium Type	Layer	Material	Refractive Index	Extinction Coefficient	Physical Thickness (nm)	Medium Thickness (mm)
Incident	Parallel	1	Glass	1.51854	0.00000		0.500
	[selected]	2	Ta2O5	2.14091	0.00000	250.00	
	[selected]	3	SiO2	1.45992	0.00000	105.00	
Emergent			Air	1.00000	0.00000		
						355.00	

두께 조정 조건

두께 : 250 > 350
Interval : 10

2. " Tools > Scripts "





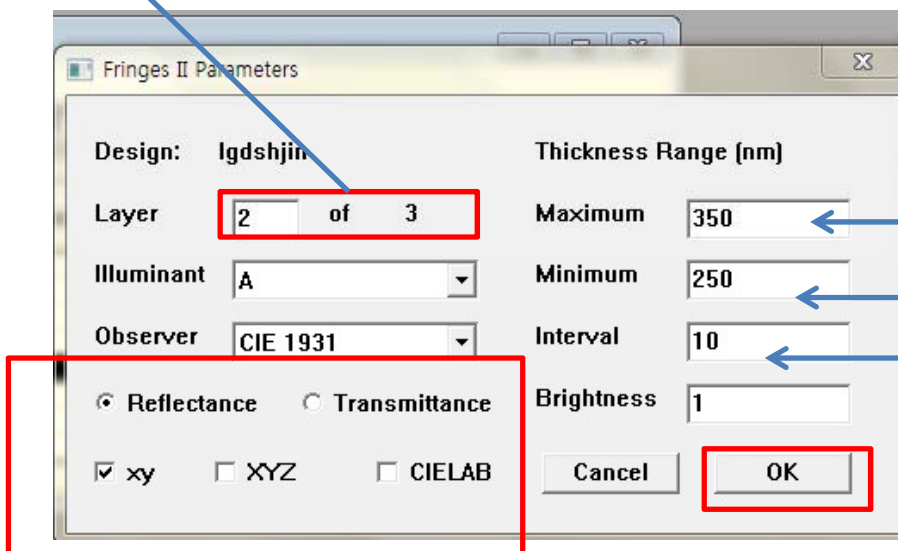
FringeII 선택 > Run

Edit : Scripts file을 보여 주어
사용자가 내용을 보거나 수정이 가능.



3. 결과 Data 조건 설정

3 Layer 중 2번 Layer



최대 두께

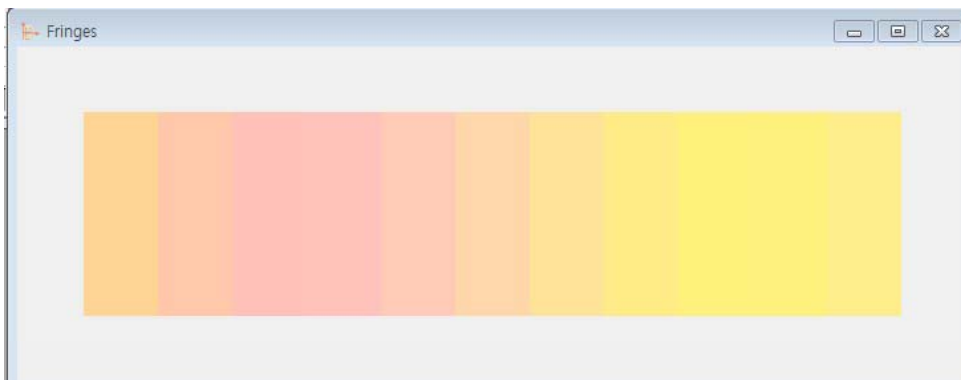
최소 두께

증감 간격

결과 Data 설정

Layer 두께를 단계별로 자동으로 계산한 결과 Data Table과 Color Patch가 나타납니다.

Physical Thickness (nm)	Reflectance x	Reflectance y
250	0.433666046184326	0.383399336207221
260	0.422090095433832	0.355479971571002
270	0.410344809154756	0.33788881094519
280	0.401763911243892	0.335159035562621
290	0.398503902314907	0.347477603091061
300	0.401101194118452	0.370857238797752
310	0.408232729588727	0.397851068590369
320	0.417091400068792	0.41962027770038
330	0.424582048574641	0.429408069909076
340	0.428725937267724	0.425373544736833
350	0.429264359734912	0.410586968303423



-특정 Layer 두께와 단계별로 자동으로 계산하여 결과 Data를 Table과 Color Patch로 보여 주는 조건인 경우

Layer	Material	Refractive Index	Extinction Coefficient	Optical Thickness (FWOT)	Physical Thickness (nm)
Medium	Air	1.00000	0.00000		
1	MgF2	1.38542	0.00000	0.25098388	52.39
2	Ta2O5	2.14455	0.00000	0.52909037	125.82
3	MgF2	1.38542	0.00000	0.08057921	29.66
4	Ta2O5	2.14455	0.00000	0.06871034	16.34
Substrate	Glass	1.52083	0.00000		
				0.52936380	264.22

Dialog Box

Fringes III Parameters

Design: **AR 4-L b**

Layer **2** of **4**

Illuminant: **D65**

Observer: **CIE 1931**

Reflectance Transmittance

xy XYZ CIELAB

Thickness Range (nm)

Maximum: **500**

Minimum: **0**

Interval: **2**

Brightness: **1**

Angle Range (deg)

Maximum: **70**

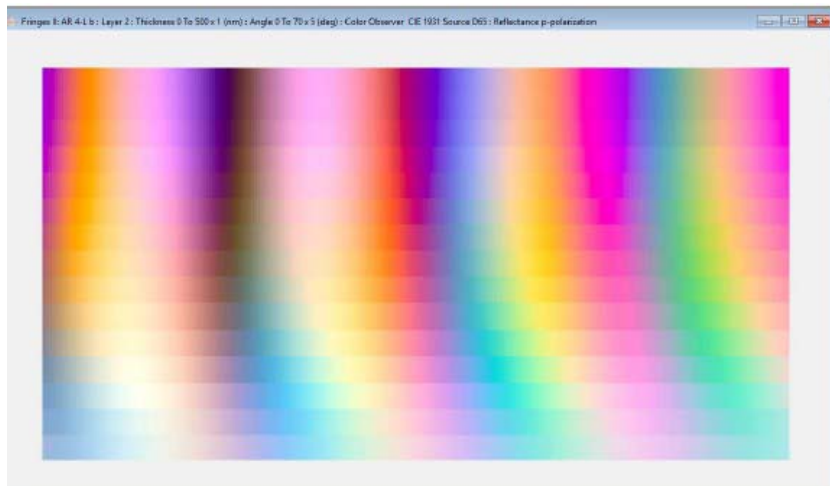
Minimum: **0**

Interval: **5**

p s mean

Equalize

Cancel OK



Physical Thickness (nm)	0.000 (deg) Reflectance x	0.000 (deg) Reflectance y	0.000 (deg) Reflectance z	0.000 (deg) Reflectance x	0.000 (deg) Reflectance y	0.000 (deg) Reflectance z	0.000 (deg) Reflectance x	0.000 (deg) Reflectance y	0.000 (deg) Reflectance z	0.000 (deg) Reflectance x	0.000 (deg) Reflectance y	0.000 (deg) Reflectance z	0.000 (deg) Reflectance x	0.000 (deg) Reflectance y	0.000 (deg) Reflectance z	0.000 (deg) Reflectance x	0.000 (deg) Reflectance y	0.000 (deg) Reflectance z
2.00000	0.20000	0.17000	0.58000	0.20000	0.17000	0.58000	0.20000	0.17000	0.58000	0.20000	0.17000	0.58000	0.20000	0.17000	0.58000	0.20000	0.17000	0.58000
4.00000	0.39997	0.34999	0.30000	0.39997	0.34999	0.30000	0.39997	0.34999	0.30000	0.39997	0.34999	0.30000	0.39997	0.34999	0.30000	0.39997	0.34999	0.30000
6.00000	0.59993	0.54995	0.45000	0.59993	0.54995	0.45000	0.59993	0.54995	0.45000	0.59993	0.54995	0.45000	0.59993	0.54995	0.45000	0.59993	0.54995	0.45000
8.00000	0.79989	0.74991	0.55000	0.79989	0.74991	0.55000	0.79989	0.74991	0.55000	0.79989	0.74991	0.55000	0.79989	0.74991	0.55000	0.79989	0.74991	0.55000
10.00000	0.99985	0.94987	0.70000	0.99985	0.94987	0.70000	0.99985	0.94987	0.70000	0.99985	0.94987	0.70000	0.99985	0.94987	0.70000	0.99985	0.94987	0.70000
12.00000	1.19981	1.14983	0.85000	1.19981	1.14983	0.85000	1.19981	1.14983	0.85000	1.19981	1.14983	0.85000	1.19981	1.14983	0.85000	1.19981	1.14983	0.85000
14.00000	1.39977	1.34979	1.00000	1.39977	1.34979	1.00000	1.39977	1.34979	1.00000	1.39977	1.34979	1.00000	1.39977	1.34979	1.00000	1.39977	1.34979	1.00000
16.00000	1.59973	1.54975	1.15000	1.59973	1.54975	1.15000	1.59973	1.54975	1.15000	1.59973	1.54975	1.15000	1.59973	1.54975	1.15000	1.59973	1.54975	1.15000
18.00000	1.79969	1.74971	1.30000	1.79969	1.74971	1.30000	1.79969	1.74971	1.30000	1.79969	1.74971	1.30000	1.79969	1.74971	1.30000	1.79969	1.74971	1.30000
20.00000	1.99965	1.94967	1.45000	1.99965	1.94967	1.45000	1.99965	1.94967	1.45000	1.99965	1.94967	1.45000	1.99965	1.94967	1.45000	1.99965	1.94967	1.45000
22.00000	2.19961	2.14963	1.60000	2.19961	2.14963	1.60000	2.19961	2.14963	1.60000	2.19961	2.14963	1.60000	2.19961	2.14963	1.60000	2.19961	2.14963	1.60000
24.00000	2.39957	2.34959	1.75000	2.39957	2.34959	1.75000	2.39957	2.34959	1.75000	2.39957	2.34959	1.75000	2.39957	2.34959	1.75000	2.39957	2.34959	1.75000
26.00000	2.59953	2.54955	1.90000	2.59953	2.54955	1.90000	2.59953	2.54955	1.90000	2.59953	2.54955	1.90000	2.59953	2.54955	1.90000	2.59953	2.54955	1.90000
28.00000	2.79949	2.74951	2.05000	2.79949	2.74951	2.05000	2.79949	2.74951	2.05000	2.79949	2.74951	2.05000	2.79949	2.74951	2.05000	2.79949	2.74951	2.05000
30.00000	2.99945	2.94947	2.20000	2.99945	2.94947	2.20000	2.99945	2.94947	2.20000	2.99945	2.94947	2.20000	2.99945	2.94947	2.20000	2.99945	2.94947	2.20000
32.00000	3.19941	3.14943	2.35000	3.19941	3.14943	2.35000	3.19941	3.14943	2.35000	3.19941	3.14943	2.35000	3.19941	3.14943	2.35000	3.19941	3.14943	2.35000
34.00000	3.39937	3.34939	2.50000	3.39937	3.34939	2.50000	3.39937	3.34939	2.50000	3.39937	3.34939	2.50000	3.39937	3.34939	2.50000	3.39937	3.34939	2.50000
36.00000	3.59933	3.54935	2.65000	3.59933	3.54935	2.65000	3.59933	3.54935	2.65000	3.59933	3.54935	2.65000	3.59933	3.54935	2.65000	3.59933	3.54935	2.65000
38.00000	3.79929	3.74931	2.80000	3.79929	3.74931	2.80000	3.79929	3.74931	2.80000	3.79929	3.74931	2.80000	3.79929	3.74931	2.80000	3.79929	3.74931	2.80000
40.00000	3.99925	3.94927	2.95000	3.99925	3.94927	2.95000	3.99925	3.94927	2.95000	3.99925	3.94927	2.95000	3.99925	3.94927	2.95000	3.99925	3.94927	2.95000
42.00000	4.19921	4.14923	3.10000	4.19921	4.14923	3.10000	4.19921	4.14923	3.10000	4.19921	4.14923	3.10000	4.19921	4.14923	3.10000	4.19921	4.14923	3.10000
44.00000	4.39917	4.34919	3.25000	4.39917	4.34919	3.25000	4.39917	4.34919	3.25000	4.39917	4.34919	3.25000	4.39917	4.34919	3.25000	4.39917	4.34919	3.25000
46.00000	4.59913	4.54915	3.40000	4.59913	4.54915	3.40000	4.59913	4.54915	3.40000	4.59913	4.54915	3.40000	4.59913	4.54915	3.40000	4.59913	4.54915	3.40000
48.00000	4.79909	4.74911	3.55000	4.79909	4.74911	3.55000	4.79909	4.74911	3.55000	4.79909	4.74911	3.55000	4.79909	4.74911	3.55000	4.79909	4.74911	3.55000
50.00000	4.99905	4.94907	3.70000	4.99905	4.94907	3.70000	4.99905	4.94907	3.70000	4.99905	4.94907	3.70000	4.99905	4.94907	3.70000	4.99905	4.94907	3.70000