



In the previous video, we had started from these tokens defined in our Design System, which represented the color system of our application in a too basic way. At the end of the video, we had a much more complex color system, but it was also more functionally precise, much more semantic.

~	a	1			A.L. 0740700	107	00000 10 100	4222002222					
7	G IN ==	docs.google.con	n/spreadshee	ts/d/10M	/wincha8ZASN5_i	IG6pcap3yiArNcFvMSgV	/O068e_I/edit#g	d=1337893737					2 II
neXu	us 😹 DL Portal	🖾 Issues											
	lokens Irave	I Agency ☆									5 E	다 · 옥 Sh	are 🔹
F	File Edit Viev	v Insert Forn	nat Data	Tools	Extensions	Help							
	5 d A 9	5 100% -	\$ %	.0 .00	123 Defau	u - 10 +	B 7	≏ A À. B	n 52	==+++			~
•	5 6 8	0 10070	•	+ +	Dorad		0 1		u 23	=			
	✓ fx												
	C	D	E	F	G	н	i i	J	к	L	М	N	
				4	Alias/Semantic					Component/Spe	cific		
e	Light Value	Value Dark	Opacity		Region	Name	Light	Dark		Region	Name	Light	
	#A7E491	#54958A	100%	4	Application	primary	green200	green300		Menu	menu_item	text_on-image	text_o
	#73D94F		100%			secondary	green300	green200			menu_indicatorselected	primary	second
	#015547		100%			primaryhighligthed	green100	green100					
										Card-Home	card-hometitle	gray00 surface	gray80(
	#FFFFFF		100%	E	Background	surface	gray00	gray800			card-home_subtitle	secondary	primary
	#C1C1C1		100%										
	#D2D2D2		100%	c	On_Colors	title_on-surface	secondary	gray00	-	Footer	footer_background-color	secondary	surface
	#616161		100%			titleon-image	gray00	gray00			footertext	gray200	gray200
	#26262C		100%			1					form bandes sales		
	#191819		33%			text_on-primary	grayooo	grayou		Form	form_text-placebolder	gray200	gray200
						text_on-secondary	grav2002	primary?			form_text	text on-surface	text o
						text on-image	gray00	grav00				ton_on-oundoe	
							9,-,	9		Card-Attractions	card-attraction title	title on-image	title o
											card-attraction text	text on-image	text o
													_
										Hero	herotitle	title_on-image	title_o
										Banner	banner background-color	primary	primary

It was the one we had expressed in this spreadsheet.

→ (3 ଲ 🖛 do	cs.google.com/sprea	idsheets/d/1oMvIncna8Z/	ASN5_iTG6pcap3	ByiArNcFvMSgVO06	68e_l/edit	#gid=1337893737				Q \$	3
eneXus	DL Portal	ssues										
	_											
Tol	kens Travel Ag	jency 🕁 👰	8						50		Share -	1
File	Edit View	nsert Format I	Data Tools Extensio	ons Help					0		I Share .	
5	~ 육 등	100% - \$	% .0 .00 123	Defaul 🝷	- 10 +	BI	÷ <u>A</u> ♦.	⊞ 53 • ≣ • ± •	₽ * <u>A</u> * \$		^	
24	✓ fic											
2	E F	G	н	1	J	К	L	м	N	0	Р	
	100%		secondary	green300	green200			menu_indicatorselected	primary	secondary		-0
	100%		primaryhighligthed	green100	green100					0001		-6
		-	a company a				Card-Home	card-nometitle	gray00 surface	gray800 surface		
	100%	Background	surface	grayoo	gray800			card-nomesubtitle	secondary	primary		
	100%	0	the secondara	a secondara (F	factor backsonial color				
	100%	On_Colors	title_on-surface	secondary	gray00		Footer	footerbackground-color	secondary	surface		
	100%		uue_on-image	grayou	giayou			loolel_lext	glay200	gray200		
	33%		text on surface	grav600	arav00		Form	form border color	grav200	aray200		
	0070		text_on-primary	secondary	secondary		T OTHE	form_text-placeholder	gray200	gray200		
			text_on-secondary	grav2002	primary?	1	1	form_text	text on-surface	text on-surface		
			text on-image	grav00	grav00							
							Card-Attractions	card-attraction_title	title_on-image	title_on-image		1
								card-attraction_text	text_on-image	text_on-image		1
							45					
							Hero	herotitle	title_on-image	title_on-image		
							Banner	bannerbackground-color	primary	primary		
								bannertitle	text_on-primary	text_on-primary		1
								banner_text	text_on-primary	text_on-primary		
												*
												1

We had said that these tokens, which were marked in this way and gave more specificity to the system, at the same time made it more complex, so I will not use them this time. I'll move them down here so as not to lose them.

The East view Layout build kno	wiedge Man	ager window tools test help					
		🔬 🕨 🔤 NETSQLServer 🔹 Release 🔹 📲 Tests Build Build 🔹 🕺):			Description	
G KD Explorer Y X	Travel	Agency X				Propenses	* *
Open; Name or Pattern	Tokens	Styles Documentation				Filter	>
TravelAgency	1	tokens TravelAgency {	- Te -		Q. Search tokens All		
Main Programs	2	22	1	PRIMITIVE			
Root Module	3	#colors	- Marine	NAME	COLOR VALUE		
	4	treation Primitive		NAME	COLOR VALUE		
PlasinnSustame	6	green100: #A7E491:	Same a	green100	#A7E491		
TravelAgency	7	green200: #73D94F;	Same and a second	augus 200	1730045		
Files	8	green300: #015547;		greenzoo	8/30/94P		
Images	9	#endregion		green300	#015547		
	10	and the second second second		1			
- Weit	11	#region Neutral		primary	#73094F		
Transactions	12	gray00: #FFFFF;		secondary	#015547		
TravelAgencyBackoffice	14	gray600: #616161:					
L. Domains	15	gray800: #26262C;		primarynigniight.	#A/E491		
images	16	opacity: #19181933;		surface	#FFFFFF		
> DE References	17	#endregion			Scolors.gree		
Customization	18			title_on-surrace	n300		
Documentation	19	#region Application		title_on-image	WFFFFFF		
	20	secondary: \$colors.green300:			Terrare and the second s		
	22	primaryhighlighted: \$colors.green100;		text_on-surface	#616161		
	23	#endregion		text_on-primary	Scolors.gree		
	24				1500		
	25	#region Background		text_on-image	#555555		
	26	<pre>surface: \$colors.gray00;</pre>		menu_item	\$colors.gray00		
	27	aeucregrou			\$colors.g		
	29	#region On-Colors		menu_indicator	reen200		
	30	<pre>title_on-surface: \$colors.secondary;</pre>		card-home_title	\$colors.gray		
	31	<pre>title_on-image: \$colors.gray00;</pre>			Scolors.g		
	32	<pre>text_on-surface: \$colors.gray600;</pre>		card-home_subtit	reen300		
	33	<pre>text_on-primary: \$colors.secondary;</pre>		footer_backgroun	Scolors.g		
	34	text_on-image: \$colors.gray00;			reensou		
	35	"enviregron		footer_text	#C1C1C1		
B KB Explorer	37	tregion Menu		form border-colo	#C1C1C1	Properties Toolbox	

Here I have our DSO with all the tokens required to model the system, and their values for Light mode only.

We see that those that we place in the Primitive and Neutral region have absolute hexadecimal values, while all the others' values are references to other tokens.

So far, these are things we more or less already knew. We still have to see how to represent the Dark mode.

But first... let's modify the colors that we use in the classes, so that they use the new tokens. What colors did we have?



The background-color of the screens, which we had placed inside the Application class, will now correspond to the surface color token...



The h2 class is that of the title on the Surface, and its color is the token title_on-surface.

File Edit View Layout Build Knor	edge Manager Window Tools Test Help			
KB Explorer P X	a Con Mark Contraction Contrac	V 01	Properties	ą :
pen: Name or Pattern	Tokens: Styles * Documentation	TH S	Filter	
TravelAgency	20 21.: Bx-ITTefLLaherWBellch.nestBliph.cemp.el.ehurk.semprontn);	Tari v S	elector: Properties	
> 💽 Main Programs	57 font-weight: 600;	Tap	and the second second	
	58 }	The	Jame	.paragraph
General	59 60 //	Tor	ilter by ControlType	Any
V TravelAgency	0 references	The Fi	ilter by UI	Any
V 😍 DesignSystems	61 Application {	105V	Common	
TravelAgency	62 background-color: \$colors.surface;	and and Ins	Ibackground color	
Files	<pre>63 font-family: \$fonts.primary;</pre>	and the second second	Dackground-color	
Images	64 }		background-image	(none)
> 🛅 UI	65		border-bottom-left-r	
Weit	0 references		border-bottom-right-	
Transactions	00 .112 (67 fant_weight: 700.		border-color	
TravelAgencyBackoffice	68 font-size: 670x:		Dorder-color	
I Domains	69 line-height: 78px;		border-radius	
images	<pre>70 color: \$colors.title_on-surface;</pre>		border-style	
DE References	71 }		border-top-left-radiu	
Customization	72		border-top-right-rad	
Documentation	0 references		bolder top right roa	
	73 -paragraph		border-width	
	74 tont-weight: 400;		color	
	75 TORT-SIZE: JOPX; 76 Lina_hainb+: 20ny;		font	
	77 // text-alin: left;		I foot-family	
	78 color: \$colors.flex;	-	Tone toning	
	79 margin-top: 112 ; mett_on-image	-	font-size	16px
	80 margin-bottom: 110 attext_on-primary		font-style	
	81) Prest_on-surface		font-weight	400
	82 and form_text-placeholder		height	
	0 references		neight	
	83 .paragraph-spacing {		margin	
	84 margin-block: itopa;		margin-bottom	110px
	65 J		margin-left	
	0 references		margin_right	
KB Explorer	87 .button {	OP	roperties T Toolbox	

The paragraph class corresponded to the common text on the surface, so here we replace it with the text_on-Surface color token.

0000000000000	. 88%	KETSQLServer Release Tests Build Build	· 🖄 :				
KB Explorer 9 X	TravelAge	ncy* X			~	Properties	~ ×
Open: Name or Pattern	Tokens Styl	es * Documentation				🗄 🤶 🌾 Filter	2
 TravelAgency C Main Programs Proce Module C General C General TravelAgency PossfSystems Files Files J mges U genes 	71 72 73 74 75 76 77 // 78 79	<pre>} } oreferences .paragraph { font-weight: 400; font-size: 16px; line-height: 29px; text-align: left; color: Scolors.text_on-surface; margin-top: 110px; protein bottom: 110px; </pre>				 Science Properties Name Filter by ControlType Filter by UI Common background-color background-image border-bottom-left-r 	.button Any Any (none)
Weit Transactions Transactions Transactions Transactions Transactions Transactions Transaction Transaction Transaction	81 82 83 84 85 86	<pre>} } oreferences .paragraph-spacing { margin-block: 110px; }</pre>		Color system		border-bottom-right	
> 🕜 Documentation	87 88 89 90 91 // 93 94 95 96 97 98 99 99	Orderences .button { font-weight: 800; font-size: 14px; line-height: 18px; text-align: center; text-ransform: uppercase; color: \$colors.text background-color: \$ background-color: \$ backg	text_on-primary	The new age of EXPLORATION primary •	no en	primary o)))
	101	2				margin-left	
KB Explorer KB Explorer Output	102 100	Orderences .buttonhovered { .background colon: Colons noiseau, highlighted.				Properties Toolbox	

And for the button, we have the correct background-color, because it is primary as background color.

And the color should be text_on-primary.

With the hover action on the button, the background-color changes to primary-highlighted, which is correct.



Let's run it to confirm that everything looks as expected.

I'm going to copy the URL to run the application in the Opera browser that allows me to switch between Light and Dark mode more easily.

Note that if I choose the Dark mode, what we see is exactly the same as in Light mode.



Well, let's not delay any longer the question we are eager to answer from the beginning: how do I specify the changes in the color tokens in order to make them vary by mode?

There we find the options of the set of tokens.

TravelAgency - GeneXus 18	wiedoe Manager, Wie	daw Tools Test Help					- o ×
	🕂 🚟 📇 🖂 🕨 🔤	NETSQLServer · Release · Tests Build Build ·					
KB Explorer 9 X	TravelAgency*	k l				V Properties	<i>4</i> >
Open: Name or Pattern	Tokens * Styles 1	Documentation				Eite	er
TravelAgency	1 token	TravelAgency (color-scheme: [light] dark) (THE CO. P. LANS.	
> 💽 Main Programs	2	transmission (come sense [mshirt] and) (10	≣ⅢΥ	Q Search tokens All		
Soot Module	3 #0	colors	See. m	PRIMITIVE		1	
> 😭 General	4 {		100	NAME	COLOR VALUE		
TravelAgency	5	#region Primitive	January .	areas100	#175101		
	6	green1p0: #A35491;	Marrie .	greentoo	86/2491		
TravelAgency	7	green200: #7]D94F;	James .	green200	#73D94F		
Files	8	green300: #015547;		-		- 11	
Images	10	#endregron		green300	#015547		
> 🛅 U	11	treation Neutral		primary	#73D94F		
D Wait	12	grav00: #FFFFFF:		-		- 11	
Transactions	13	gray200: #C1C1C1;		secondary	#015547		
TravelAgencyBackoffice	14	gray600: #616161;		nrimaryhighlight	#475491		
Domains	15	gray800: #26262C;		printer)			
images	16	opacity: #19181933;		surface	#FFFFFF		
> DE References	17	#endregion	1	and a second second	Scolors.gree		
Customization	18			title_on-surrace	n300		
> in Documentation	19	#region Application		title_on-image	#FFFFFF		
	20	primary: \$colors.green200;					
	21	secondary: scolors.greensoo;		text_on-surface	#616161		
	22	tendragion		text op.orimacy	Scolors.gree	_	
	24	action egycon			n300		
	25	#region Background		text_on-image	#FFFFFF		
	26	<pre>surface: \$colors.gray00;</pre>			Ecology arriv00		
	27	#endregion		menu_item	acolors.grayoo		
	28			menu_indicator-	Scolors.g		
	29	#region On-Colors			Scolors.grav		
	30	title_on-surface: \$colors.secondary;		card-home_title	00		
	31	title_on-image: \$colors.gray00;		card-home_subti	tie Scolors.g		
	32	text_on-surface: \$colors.grayooo;		-	reen300		
	33	cext_on-primary. scotors.secondary,		footer_backgrour	n scolors.g		
	Output					9 ×	
	Show: Build	• X Q =			🕒 🛄 🔶 Ai	utoscroll	
B KB Explorer	Success: Run Hon				and the second	Properties	Toolbax
C1Models1GX18 TravelAgency					Elfa-an-	and a second	

To this set of tokens called TravelAgency we can specify variations, and we do it in parentheses. In this case, we want to vary some of the color tokens according to the color scheme – our option will be called color-scheme – which can take two values: light and dark. We can specify with straight brackets which will be the default option.

And then we still have to specify what values the tokens take on for one value of the option and for the other.

For example, the values of these tokens: for which color scheme are they valid? Only the first one varies and the others do not vary, so they would be for both. Therefore, we leave them as they are.

KB Explorer 9 X	TravelAgency X	~	O Properties	<i>4</i>)
pen: Name or Pattern	Tokens Styles Documentation		E	
TravelAgency	1 tokens Travelagency (color-scheme: [light] dark) {			
> 💽 Main Programs	2 Search toke	8 AI 0 C		
V 🐨 Root Module	3 #colors			
> 😭 General	4			
V TravelAgency	5 #region Primitive			
Operation Systems	6 greenl00: #A7E491; NAME COLOR VALUE			
TravelAgency	/ green200: #73094F;			
Files	9 Bendereinon green100 #A7E491			
images	10 green200 #73094F			
	11 #region Neutral	i		
P Tassation	12 gray00: #FFFFF; green300 #015547			
TravelàgeoguBackoffice	13 gray200: #CICICI; + Add new token			
P Domains	14 grayees: #oloioi;			
images	16 opacity: #19181933:			
References	17 Hendregion NAME COLOR VALUE			
Customization	18			
Documentation	19			
	20 @color-scheme = light { grsy200 #C1C1C1			
	21			
	22 #Colors { grayou #elote:			
	25 mregion application gray60 #26262C			
	25 secondary: \$colors.green300;			
	26 primaryhighlighted: \$colors.green100;			
	27 #endregion + Add new token			
	28			
	29 #region Background PONTS	^		
	30 Surface: \$colors.gray00; NAME FONT			
	31 #enaregion			
	32 Hregion On-Colors Ale primary Heebo			
	E Output	₽ ×		
	Show: General	🕒 🖪 🕈 Autoscroll		
			40 million (1997)	

From there we can specify that all the ones indicated here, which are the ones in levels two and three that we've identified in our template, will be given values for both options.

So we set all of these as assignments for the color-scheme light value... like this. Note that we have the universal color tokens, and here we have for the light option, the definition of this color token set. They will be valid, then, only when that is the chosen option.

TravelAgency - GeneXus 18	Jadas Mansaas Window Task Task Usla					- a ×
	Heige Manager Window Tools Test Heip Melease Tests Build Build					
⊗ KB Explorer ♀ ×	TravelAgency * X				Properties	<i>a</i> >
Open: Name or Pattern	Tokens Styles Documentation				Pin el 😼 Filter	
TravelAgency	1 tokens Travelågenov (color-scheme: [light] dark) /	7			THE AT I THE	
> 🔄 Main Programs	2	1	≡≡Ÿ	Q Search tokens All	÷ (°	
- 🐨 Root Module	3 #colors	-				
> 😭 General	4 {	jan.,	COLORS		^	
TravelAgency	5 #region Primitive	1				
	6 green200: #73D94F;	James -	NAME	COLOR VALUE		
TravelAgency	7 green300: #015547;	Sec.	in Ame	COLOR VALUE		
Files	8 #endregion	, Janes I.	green200	#73D94F		
images	9	<u>ja</u>				
> 🛅 U	10 #region Neutral		green300	#015547		
D Wait	12 gray200: #FFFFFF,			+ Add new token		
Transactions	13 gray600: #616161:		-			
TravelAgencyBackoffice	14 gray800: #26262C;		O NEUTRAL			
Domains.	15 opacity: #19181933;		NAME	COLOR VALUE		
Images	16 #endregion					
> DE References	17 }		gray00	WEEFEFF		
> Y Customization	18		gray200	#C1C1C1		
> in Documentation	<pre>19 @color-scheme = light {</pre>					
	20		gray600	#616161		
			arau800	#262620		
	22 23 Hoogion Drimitivo		grayooo			
	24 preen100: #AF401:		opacity	#19181933		
	25 #endregion					
	26			+ Add new token		
	27 #region Application		FONTS			
	28 primary: \$colors.green200;					
	29 secondary: \$colors.green300;		NAME	FONT		
	30 primaryhighlighted: \$colors.green100;		Ale primary	Hasho		
	31 #endregion		Are primary	HEEDO		
	32		Ale secondary	Rubik		
	33 #region Background					
	E) Output				₽ ×	
	Show: General			80+	Autoscroll	
KB Evolorer	Generating Design System TravelAgency.DesignSystems.TravelAgency		Properties T	Toolbox		
					- Properties	100000

We are going to add, in here, the Primitive region. And there we're going to copy this token, because we knew that this was going to vary by mode. So this is going to be the value of the token for the light mode.

To sum up what we've done so far: we defined the color-scheme option, which takes one of these two values. The default value is this, light. Here we have color tokens that do not vary according to the mode. They will always correspond to these values. And here we are defining the color tokens when the color-scheme is light, right? We're indicating, then, the values of all those tokens.

What's left to do? Well, to define the values of the tokens when the color-scheme is dark.



And that, I set it here below. For the color-scheme dark... what's the value of the green100 token, which we see is this other light green, primary, secondary, and all the others...

														1.00
KB Explorer 9 X	TravelAgency	* ×									\vee	Properties		4
pen: Name or Pattern	Tokens * Style	s Documentation										E Z Filter		
TravelAgency C Main Programs S Poot Module S P General S TravelAgency	64 65 66 67	} } @color-scheme = dark {	~	C Dama Part	Assercy - Google - M			Color-sc dark	cheme:	Q_Search tokens All	• C		-	
> SP DesignSystems	68	11-12-1-17	1										0.4	
TravelAgency	70	#colors	· ·	- 0 6	a docs.goog	e.com/spreadsheets/d/3	MVINCHABL/OPE	5_IIUspcapuywinidrum	ogvuusse peakkgid	-1337093737			<i>a</i> , 7	
Files	71	green100: #54958A:	00	enellus 🖉 D(I	Nortal 🖸 Issues									
Images	72	#endregion	E	Tokens 1	fravel Agency		Establish	Male				3 🗏 D·	& Share	- 3
> 🗂 UI	73			File Eult	view insert	Pormat Data Tool	S Exterisions	ney						
D Weit	74	#region Application		4.5 0	e 7 100%	• 5 %	v⊈ 123 Det	aul_ • - 10) + B I -	A A B 8 4 1	E+ ± + PI+ 2	.• I	^	E
Transactions	75	primary: \$colors.green300	36	- 5	c green100									
TravelAgencyBackoffice	70	secondary: \$colors.greenz	10 1	1 1	0	н		3	K L	м	N	0	P	9
L Domains	78	#endregion	2	-	Alias/Semanti			Part 1	Component/S	pecific	1 1000	0.00		0
images	79	a state a Bran	-	100%	Application	primary	green200	green300	Menu	menu	text_on-image	text_on-image		
> p⊞ References	80	#region Background	-	100%		secondary	green300	green200		menu_indicator-selected	primary	secondary		- 1
Customization	81	<pre>surface: \$colors.gray800;</pre>	7			,			Card-Home	card-hometitle	gray00 surface	gray800 surface		
Documentation	82	#endregion	÷	100%	Background	surface	gray00	gray800		card-homesubtitle	secondary	primary		
	83	Housing On Colons	10	100%	On_Colors	title_on-surface	secondary	gray00	Footer	footer_background-color	secondary	surface		
	84	title on-surface: Scolors	12	100%		title_on-image	gray00	gray00		footertext	gray200	gray200		- 4
	86	title on-image: Scolors.	10	33%		text_on-surface	gray600	gray00	Form	form_border-color	gray200	gray200		
	87	text on-surface: \$colors	g 15			text_on-secondary	gray2007	primary?		form_text-placenoider	gray200	gray200		
	88	text_on-primary: \$colors	5 10			text_on-image	gray00	grayog						
	89	text_on-image.fscolors.g	10 TB					45						
	90	#endregion 📕	19											
	91	And a strength of the strength	21											
	92	#region Menu	22											
	94	menu_indicatorselected		+ =	Text Styles	Text Styles + Mu	ltiexperience	· Colors Styles	- Colors Sty	les + Dark Mode + Cold	or tokens + Te	t Classes -		,
	95	#endregion						fonter har	karoup Sc	plors.g				
	96							Toosanoas	raj	/800				
	Output										7 X			

...whose values, clearly, I took from the spreadsheet, from the Dark columns of each table.

OK, here you can see the point of having marked the tokens whose values were the same in light and dark mode.

KB Explorer 9 X	TravelAgency* X	\vee	Properties	4
pen: Name or Pattern	Tokens* Styles Documentation		E 2 Filter	
per: [String P Pattern	Totems* System Documentation 11 gray00: #FFFFF; gray00: #CICIC; gray00: #CICICIC; gray00: #CICICIC; gray00: #CICICIC; gray00: #CICICIC; gray00: #CICICIC; gray00: #CICICIC; grave10: #CICICICICIC; grave10: #CICICICICIC; grave10: #CICICICICICI		記 記 学 子 Filter	
		* X		
	onow: General	Autoscroll		

Because I could define these only once, at the beginning, where I have the tokens that don't vary, by color-scheme. So, I move, for example, primary-highlighted to here, and remove it from both sections, light and dark.

Doing it that way has advantages: there will be no inconsistencies; and it also has disadvantages: the tokens are more scattered.

For example, I will have the primary and secondary variables by color-scheme, but if I want to look for primary-highlighted I won't find it there, filtering by light or dark.

Once again, this decision is at the fontender's own risk. I'm going to leave them as I had them for now.



OK, let's try it now.

Here we have the Light mode. And we see, if we switch to Dark, how the colors were modified, just as we wanted.

If we now go back to Light...

TravelAgency - GeneXus 18								-	σ	×
File Edit View Layout Build Know	wledge Manager Window Tools Test Help									
MIN MIX D DIOCO	Release	- Tests Build Build -								
🛞 KB Explorer 🛛 🥺 🗙	TravelAgency X						\sim	O Properties		₹ ×
Open: Name or Pattern	Tokens Styles Documentation							Filter		×
TravelAgency	1 tokens TravelAgency (color-scher	a: [light] dar]) /	2							
> 💽 Main Programs	2	ie. [ingit] uni]) (10.00	. ≡ ⊞ \	7	Q Search tokens All	\$ C			
- 🐨 Root Module	3 #colors						1			
> 😭 General	4 (100	COLOR	s		~			
V TravelAgency	5 #region Primitive		-		ITIVE		- U			
V 😍 DesignSystems	6 green200: #73D94F;		in the second		NAME	COLOR VALUE	- U			
TravelAgency	· •		Q.	- 0 ×	Territe.		II			
Files	C kohot (Mil)/hashgesphare (and, fatal		RUSPOT	28.0	green200	#73D94F	— II			
Images			Easy setup	×	green300	#015547				
> Weit			There			+ Add new token				
TravelågenovBackol		At Travel Agency, we have consultants with an ave	C Light Can	System UT	TRAL					
Domains	The new	passion for travel available who will work out the d			NAME	COLOR VALUE	- 11			
Images	The new	vacations.	Start Page							
> DE References	age of	We will work with you to plan a worry free adventu	Show Speed Dial suggestions		gray00	#FFFFF				
Customization	EVELOPATION	the entire process. This means making ourselves	Show News		gray200	#010101				
Documentation	EXPLORATION	we plan river and ocean cruises, romantic honeym			gray600	#616161				
	CONTACT US	family, adventure and wellness travel along with in itineraries.	Al Services Al Services in sidebar	inter leting	gray800	#26262C				
			Al Poingto in text highlight popula	-	opacity	#19181933				
			Layout			+ Add new token				
				0 5			~			
		Attractions	On Anthia	Of	NAME	FONT				
	30 secondary: \$cold	ors.green300;		Ale	primary	Heebo				
	primary - magnazi	need. proton s. greentoo,								
	Output						4 X			
	Show: Build • X Q ⋽						+ Autoscroll			
	dotnet watch runnon-interactiveproperty	OutputPath="C:\Models\GX18\Trave	LAgency \NETSQLServer	1006\web\b	in"proje	ct "C:\Models\GX18\Travel#	V9.			
1.12	Success: Execution						Reporter			
SKB Explorer	Calculating Mobile Targets for Frontend (Front	end)				100 Acc		Properties Toolb	x	
C:\Models\GX18\TravelAgency							Ln 1	Col 1 Ch 1		INS .

At this point it would be convenient to make some remarks.

Let's start with the simplest thing: this, which looked like magic, actually corresponds to a correct systematization where we assigned, to the color properties of the classes, both background-color and color, semantic color tokens by function. And we vary those color tokens by color scheme: light or dark.

In addition, this worked just like that, without us having to specify anything at the programming level because the browser already understands that what it calls light and dark theme there corresponds exactly to the values that we call light and dark, for the option that we call exactly color-scheme in our DSO.

The reason is that we gave it exactly that name. It is not mandatory, we could have called the option in any way, but if we had done so, the browser would not have understood that it is the same thing, and would not have changed the colors as it did.



We have, however, a way to specify at the programmatic level which of the option values we want to apply at a given time.

It will be helpful, for example, if we want to give the user the option at the application level, and not at the browser level, to choose the color scheme.

For this purpose, the DesignSystem external object is included in the GeneXus module that comes installed with every KB.

When we open it, we can see a SetOption method offered precisely to set one of its possible values for a particular option (in this case, the only one we have is the color-scheme).

So, for example, we could enter this code in the event associated with a layout control for modifying the color-scheme. If in the variable that we inserted, option, there was a "dark" value and it is changed to "light" and vice versa (that is what the iff command does), and then the "color-scheme" option of the DSO associated with the object is set.

TravelAgency - GeneXus 18									- 0	×
File Edit View Layout Build Know	wledge Manage	er Window Tools Test Help								
PIE EX D DIOCO	. 西西太	NETSQLServer - Release - Tests Bu	ild Build - X -							
🞯 KB Explorer 🛛 🥺 🗙	TravelAge	ancy X 🔀 DesignSystem [Read-only] X						V Properties		₹ ×
Open: Name or Pattern	Tokens Sty	les Documentation						Filter		×
~ 🎲 TravelAgency	1 1	tokens TravelAgency (color-scheme: [light]	dark) {	-	-					
> 💽 Main Programs	2	breakpoint, phone I table	at I desktop	=	Y	Search toke	s Al 🗘 🤇	, `		
Root Module	3	#colors					colors	a		
> 😭 General	4	{		COLON	6		fonts	41		
V TravelAgency	5	#region Primitive	Obrasknoint - deskton /	O PRIM	ITIVE		radius			
V 😍 DesignSystems	6	green200: #73D94F;	Boleakbolin - desktop (NAME	COLOR VALUE	spacing	11		
TravelAgency	7	green300: #015547;	#fontSizes {				borders	- H		
Files	8	#endregion	5: 10px; M: 67px;		green200	#73D94F	shadows	11		
Images	10	Hregion Neutral	L: 100px;		green300	#015547	fontSizes	9. E		
> 🛅 UI	11	grav00: #EFFFFF;	}		P.cc.inco		-4.10	- 11		
> Weit	12	gray200: #C1C1C1;	}			+ Add new token	\cup			
> Transactions	13	gray600: #616161;						·		
TravelAgencyBackoffice	14	gray800: #26262C;	<pre>@breakpoint = tablet {</pre>	NEU	TRAL					
L Domains	15	opacity: #19181933;	#fontSizes {		NAME	COLOR VALUE				
images	16	#endregion	S: 14px;	1	arm-00	******				
✓ o⊞ References	17		M: 40px;		grayoo			- 11		
	18	}	L: 60px;		gray200	#C1C1C1				
Client	19	Acolor-scheme = light (
Common	21	feoror - scheme - TiBuc (grayoou	#010101				
> (Configuration	22	#colors {	<pre>@breakpoint = phone {</pre>		gray800	#26262C				
> 😭 Notifications	23		#fontSizes {	1.00				- 11		
~ 🕲 u	24	#region Primitive	S: 12px;		opacity	#19181933				
Appearance	25	green100: #A7E491;	M: 20px;			+ Add new token				
DesignSystem	26	#endregion	L: 40px;					- 11		
Nevigation	27		3	FONTS			~	111		
× Progress	28	#region Application	1			FONT				
> Deprecated	29	primary: Scolors.green200;			NAME	PONT				
DirectionsService	30	primary, scolors.greensoo	c. apoon100	A1e	primary	Heebo				
Analytics	31	primary-nightighteet. scoro	s.Ercentoo,	_				- Li		
AnalyticsKeyValu	Output						4	×		
AnalyticsPurchas	Show: Build	· X Q 5					Autos	troll		
AnyObject	dotnet wat	ch run non-interactive property OutputPath="C	:\Models\GX18\TravelAgency\NETSQLSer	ver1006\web\H	in"projec	t "C:\Models\GX18\Trav	e14			
🗶 Clipboard 🗸	Starting S	ervice					III III III/a			
KB Explorer	Success: E Calculation	xecution @ Mobile Targets for Frontend (Front end)					and the second s	Properties T T	oolbax	
C:/Models/GX18/TravelAgency		a					Ln	1 Col 1 Ch 1		INS

Of course, this means that we can have several options per DSO, not just one, and it doesn't have to be only for varying color tokens.

For example, we could add an option besides this one, separating it with a comma, or instead of this one, to vary the tokens by screen size.

Consider, for example, if we had spacing or font size tokens defined. Suppose we had S, M, L tokens for font sizes. For the different sizes, Small, Medium and Large.

We might want to vary their values according to the screen size, for which we can define a breakpoint option that takes the values phone, tablet and desktop, and from there define that for the Desktop breakpoint these are the values of these 3 tokens, but these other ones for the other breakpoints.

Is it convenient to use tokens for the font sizes in our system?

We will analyze that in the next video.

TravelAgency - GeneXus 18									- a ×
File Edit View Layout Build Kno	wledge Manager Window To	ools Test Help							
00000000000	. 🗃 🛗 🕁 🕨 🔤 NETSO	LServer - Rel	ease •	Tests Build Bu	uild • X				
👙 KB Explorer 🧧 🗙	🐼 Start Page X 🚺 Trav	velAgency 🗙 🔛	Images X	Chatbot* ×			~	O Properties	9 X
Open: Name or Pattern	Images * Documentation							Filter	×
TravelAgency	New Image							Image: Chatb	ot dark.svg
> 💽 Main Programs	Image	Style	Language	Density	Layer	Options		Name	Chathot dark svo
V TRoot Module	Chatbot_light.svg							Description	Chathat dadage
General	Carat 100, 4177 au	TravelAgency	Any	Unknown	None	color-scheme:light		Description	Chatbot_dark.svg
P DesignSystems	Size:139x137 px							Is External	False
TravelAgency	Chatbot_dark.svg	TravelAgency	Δηγ	Unknown	None	color-schemerlark		Style	TravelAgency
Files	Size:139x137 px	managency	Ally .	onaroun	Home	CONTRACTOR		Language	Any
Images								Density	Unknown
> 🛅 UI								Layer	None
D Weit								Rendering Mo	Automatic
Transactions								Flips for Right	False
			5					Course	Cillears) cfarmandar)
images								Source	c. (Osers (cremanuez (
P B References								Options	color-scheme:dark
🗸 🕄 GeneXus									
Client									
Common									
> [7] Configuration									
> (m) Notifications									
Appearance	Preview								
DesignSystem									
Navigation									
Progress									
Deprecated									
> DirectionsService									
Analytics									
AnalyticsPurchas									
AnyObject v									
< > >									
KB Explorer II Preferences	Strech (with aspect ratio)							Properties T	Toolbax
Output									
C:\Models\GX18\TravelAgency									

What is left for me to say now is that since this option appeared in our DSO, we can understand that dimension that appeared at the image level.

If I now associate our DSO to both variations as Style... let's begin with this first one... we see that the Options property appears. It will offer me to give a value to each one of the options that this DSO has specified. In this case for now we only have one, color-scheme.

So we will say that the Chatbot image will correspond to this variation only if the color-scheme is Light.

And to this other one instead if the DSO is also TravelAgency, but with Dark color-scheme.

TravelAgency - GeneXus 18		- n x
File Edit View Layout Insert Build	t Knowledge Manager Window Tools Test Help	1949 11 10 111
MMMXDBLOCA	A H NETSOLServer - Release - Texts Build Build -	
S KB Explorer P X	🐼 Start Page X 📓 Travel Agency X 📓 Images X 🔝 Chattot X 📅 Home* X	V T Toolbox 9 X
Open: Name or Pattern	Lavout 8 Rules Events Conditions Variables Documentation	Controls
TravelAgency	where the second processes is a second	EED Attribute/Variable
> 💽 Main Programs	* Application Bar	Button
Soot Module Soot M	() III MainTable Almage1	Em Image
> 😚 General		A Text Block
TravelAgency Travency TravelAgency TravelAgency TravelAgency Tr	ReformationText	- Containers
V 😍 DesignSystems	CONTONIER	E Canada
TravelAgency		
Files		Elex Component
images	Contact Us	E na
~ 🗇 U		
Attraction		Cicup Steed
Attractions	Attractions	Tab
Contact		
Lo Home	o o o o	Table Cid
Information		
MesterTravelAge		⊨ Miscellaneous
The Master Havenge		al_ Ads View
Transactions		Animation View
Transactions	~~	Audio Controller
P Domains		B Query Viewer
Ta Images		GeneXusUnanimo
V all References		Alert Angular
GeneXus		Dropdown Angular
Client		ICon Angular
Common		Select Angular
> 😚 Configuration		B Sidebar Angular
> 😭 Notifications		B Step Angular
~ 🐑 u		B Treeview Angular
Appearance		
DesignSystem		
Navigation 🗸		
< >		
B KB Explorer	Any Platform, Default Orientations - 🗘 Add Layout 🔮 Delete Layout	Properties Toolbox
Output		
C:\Models\GX18\TravelAgency		

We haven't implemented the Master Panel yet, which will be where we'll have the button with this image, but we could, just to try this at runtime, insert a single image here....

It's not showing the image called Chatbot, we don't see it... it says that's the image that will be rendered, but we can't see it. And saving doesn't change anything.

TravelAgency - GeneXus 18	_								- a ×
File Edit View Layout Build Knowler	dge Manager Window To	ols Test Help	-	Tests Build B					
KB Evolver B X	Charlens M. Milling	uteren M	ease •	Charlant M	- x)			D Properties	a v
Onese Name or Patern	Start Page X Mill Trav	elAgency X 🔛	Images X	Chatbot * X LO	Home X		~		
	Images * Documentation							z] 🍅 Filter	/
Main Programs	Mew Image					Principal Association		Image: Chatb	ot_light.svg
Root Module	Image	Style	Language	Density	Layer	Options		Name	Chatbot_light.svg
> 🚱 General	Chatbot_light.svg	Anv	Anv	Unknown	None			Description	Chatbot_light.svg
~ 🔁 TravelAgency	Size:139x137 px							Is External	False
OesignSystems	Chatbot_dark.svg							Style	Any
TravelAgency		TravelAgency	Any	Unknown	None	color-scheme:dark		Language	Any
Files	Size:139x137 px							Language	Ally
images								Density	Unknown
							5	Layer	None
Attactions							÷	Rendering Mo	Automatic
Contact								Flips for Right	False
Home								Source	C:\Users\cfernandez\
S Information									
InformationCopy1									
MasterTravelAge									
D Weit									
> Transactions									
TravelAgencyBackoffice									
Lomains									
References	Preview								
V 🕄 GeneXus									
> 😭 Client									
Common									
> 😚 Configuration									
> 😚 Notifications									
~ ⊕ u									
Appearance									
DesignSystem									
Navigation V									
SKB Explorer	Strech (with aspect ratio)							O Properties	Toolbax
Output									
C:Models\GX18\TravelAgency									

Let's see what happens if I remove the Style from one of the variations of the image... I leave the Any value, so that it is valid for any DSO..... I save...



... and now I go back to the panel, close it and open it again. Now I see it!

File Edit View Layout Insert Build Kr	nowledge Manager Window Tools Test Help				
110 0 × 0 01000.1	🚟 📇 🕨 NETSQLServer , Release 🛛 - , Tests Build Build 🔹 🖑 -				
KB Explorer 9 X	Start Page X 🎬 TravelAgency X 🖾 Images X 🖾 Chatbot X 🛅 Home X	~	O Properties	ą	×
pen: Name or Patern	wout Rules Events Conditions Variables Documentation		Filter		×
TravelAgency			Panal Mama		,
> 💽 Main Programs	Application Bar		Panet monite		-
V 🐨 Root Module	MainTable	> .	Name	Home	
> 🕎 General 🔹 🔹			Description	Home	
V TravelAgency	8dnformationText		Module/Folde	UI	
C Stranger DesignSystems			Qualified Nam	TravelAgency.Hon	ie .
TravelAgency			Object Visibilit	Public	
t images	Contact II		Main program	True	
	Contact os		Marter Danal	MasterTravalAge	
Attraction			master Parler	mastertraverage	, cy
C Attractions	Attractions		Generate Oper	Use Environment p	free
Contact			Caption	Home	
- Home	Janas Chathat		Automatic refr	Yes	
5 Information	<mage=chaudot></mage=chaudot>		 Miscellaneor 	us	
5 InformationCopy1			Generate Ot	True	
Thasteriravesige			Secure Appl	Falce	
Transactions			Natural		
TravelAgencyBackoffice			Network		
2 Domains			Connectivity	Online	
Images			Deep Link N		
✓ p⊞ References			> Main object	properties	
SeneXus			Application		
> Client			Additional F	(none)	
Common			Application	(none)	
Notifications			Notification	(none)	
< 🐑 UI			Distinct Or	(IIOIK)	
Appearance			Platform Ov		
DesignSystem			Default Layo	Default	
Navigation 🗸 🛌		edit token	Base Color 5	Default	
> L	Any Platform, Default Orientations		Fnable Prefe	False	
KB Explorer	Any Platit 🙀 Default Orientations - 🗘 Add Layout 😳 Delete Layout		• Properties T	Toolbax	

What if I limit it again to the DSO only and in Light mode...? I close and open again, and there it is again!

Well, this makes sense because this Panel object works for all platforms, not just for Angular where we are developing.

TravelAgency - GeneXus 18				- a ×
File Edit View Layout Insert Build	d Knowledge Manager Window Tools Test Help			
PIE EX D DOCO	. 🔆 📇 💫 🕨 🛛 NETSQLServer - Release - Tests Build Build - 🖉 -			
🍘 KB Explorer 🛛 🤻 🗙	Stat Page X 📓 TravelAgency X 🔝 Images X 🖾 Chatbot X 🛅 Home X	~	Properties	e x
Open: Name or Pattern	Lavout Rules Events Conditions Variables Documentation	1	Filter	3
Log ^			The state of the s	Charles and
Maps	• Application Bar		Platfornic sony	Flatform
Hessages	4 I III MainTable	>	Name	Any Platform
Runtime			OS	Any Platform
Server	8dnformationText		Device Kind	Any Device Kind
TrackingParamet			Size	Any Size
L Domains			Style	UnaningoMobile
	Contraction of the Contraction o		Additional Sty	(000e) 2
Server	Contact us		Nuclearline Ch	(none) =
Social			inavigation sty	Default
2 Domains	Attractions		Default Layout	Any
> 😚 GeneXusUnanimo			Bounds Name	
Y Customization	Janua - Chathat		Minimum Shor	0
> F8 Localization	<image=chalbot></image=chalbot>		Maximum Sho	0
Eles			Label Position	Тор
Images				
And Platform				
Any Phone				
Any Tablet 7"				
Any Tablet 10"				
Any TV				
Any Watch				
🐥 Any Android Device				
Android Phone				
Android Tablet 7"				
Android Tablet 10"				
Any Apple Device				
É iPhone				
Apple TV 🗸		edit token		
< >				
SKB Explorer	Any Platform, Default Orientations - 🗘 Add Layout 🥸 Delete Layout		O Properties	Toolbax
Output				
C:(Models\GX18\TravelAgency				3/0/0/30/0

And if we come to see the DSOs associated with Any Platform, we see that it is UnanimoMobile.

TravelAgency - GeneYur 19				- 0	~
File Edit View Layout Incert Build	Knowledge Manager Window Tools Test Help				^
	Alternative and the second				
KB Explorer 9 X	Stert Page X X Toweldown X X Is Insees X Is Chather X	~	O Properties		φ×
Openy Name of Pattern		100			~
and a second second	Layout nues Events Conditions Variables Luciumentation I		zi p Piter		
> Server			 Platform: Any 	Web Screen	
> 🕎 Social	4 IIII MainTable		Name	Any Web Scr	een
2 Domains	•		OS	Web	
> 😚 GeneXusUnanimo	Bitsform stion Text		Version		
Y Customization	ennomauomex		Device Kind	Any Device Ki	ind
> 🔁 Localization			Electrice terms		
Files			Size	Any Size	
images	Contact Us		Style	TravelAgency	(
V Platforms			Additional Sty	(none)	3
Any Platform			Navigation Sty	Default	
Any Phone	Attractions		Default Lavout	Any	
Any Tablet 10*			Daugda Marga		
	<image=chatbot></image=chatbot>		Bounds mame		
Any Watch			Minimum Long	0	
Any Android Device			Maximum Lon	0	
Android Phone			Label Position	Тор	
Android Tablet 7*					
💮 Android Tablet 10*					
C Any Apple Device					
🔹 iPad					
iPhone					
C Apple TV					
C Apple Watch					
Any Web Screen					
Web Phone					
Web Small					
web Desktop					
Decumentation	-				
Cocumentation		edit token			
< >					
SKB Explorer	🗌 Any Platform, Default Orientations - 🗘 Add Layout 😣 Delete Layout		O Properties	Toolbax	
Output					
C:\Models\GX18\TravelAgency				3/0/0	0/30/0

Which is not the TravelAgency we had here.



What we are specifying is that it takes one of these two values only for this Design System Object. We haven't specified the value for another Design System Object.

However, note that the same happens even though it appears in this way, when we execute for Angular...



Well, here we see the right image for light mode...



... and let's see what happens in dark mode ... very good!

The variations are being made as we expected.

OK, we'll continue in the next video.



training.genexus.com

GeneXus by Globant