## adapted from [?]. The center coordinates of the box can be calculated with the predicted values $t_{\rm x}, t_{\rm v}$ using a sigmoid function and offset by the location of grid cell $c_x, c_y$ . The width and height of the final box are adjusted to the previous width $p_{\rm w}$ and height $p_{\rm h}$ and scaled by $e^{t_{\rm w}}$ and $e^{t_{\rm h}}$ . $p_{\mathbf{w}}b_{\bar{\mathbf{w}}}\sigma_{\mathbf{t}_{\bar{\mathbf{x}}}} - b_{\bar{\mathbf{x}}} = \sigma_{\mathbf{t}_{\mathbf{x}}} + c_{\mathbf{x}}$

Bounding Boxes with Dimension Priors and Location Prediction,